



**Procurement and Contracting Services**  
30 Victoria Street  
Gatineau, Quebec K1A 0M6

## REQUEST FOR PROPOSAL AMENDMENT

The Request for Proposal is hereby amended; unless otherwise indicated, all other terms and conditions of the Request for Proposal remain the same.

<b>RFP Amendment No.</b> 4	<b>RFP Amendment Date:</b> August 3 , 2017
<b>Office of the Chief Electoral Officer File No.</b> ECRS-RFP-16-0167	
<b>Title:</b> Voting Services Modernization / Polling Place Process Enhancement	
<b>Request for Proposal Closing Date:</b> September 07, 2017 at 2:00 p.m. (Gatineau time)	
<b>ENQUIRIES – address enquiries to the Contracting Authority:</b>  <b>Office of the Chief Electoral Officer of Canada</b> Procurement and Contracting Services 30 Victoria Street Gatineau, Quebec K1A 0M6  <a href="mailto:proposition-proposal@elections.ca">proposition-proposal@elections.ca</a>	
<b>Attention:</b>  Ron Shaheen	<b>Tel No.</b>  819-939-1489

## **Part 1. Interpretation**

- 1.1** Elections Canada hereby amends in accordance with this amendment the Request for Proposal (RFP) for Voting Services Modernization / Polling Place Process Enhancement bearing number ECRS-RFP-16-0167 and dated June 22, 2017 (the “RFP”). This amendment hereby forms part of the RFP.
- 1.2** Unless defined herein or unless the context otherwise requires, all of the words and phrases defined in the RFP and used in this amendment shall have the same meanings assigned to them in the RFP.

## **Part 2. Questions and Answers**

The following question(s) have been asked in response to the RFP and Elections Canada hereby answers as follows:

### **2.1 Question No. 33**

Question:

RFP- Annex A – Appendix E.9 SCP

Throughout the SCP, Canada has requested a number of service elements which will significantly impact the price of the Contractor’s solution. This impact could see Security represent 20 to 25%, or higher, of the overall solution price. These elements include:

- bilingual Security Operation Center, in support of 24x7x365 Threat Monitoring and Incident Response;
- Security Information and Event Management (SIEM);
- Security Audit, Configuration and Physical Access retention for up to ten (10) years off-line;
- a Contractor established and maintained cryptographic service;
- dedicated Test Environment for OS and Firmware pre-production testing, as well as for Security Incident Response testing and training;
- where connected, Field level monitored and managed network protection, inclusive of; firewall, intrusion, ssl-inspection, denial-of-service, data leakage protection, malware and cryptographic based network access control;
- where connected, Field level monitored and managed endpoint protection, inclusive of; malware, host-intrusion, file-integrity, patch and compliance; and
- primary access controls, associated with Electoral Officer User IDs (i.e. password reset).

Can Canada confirm that the projected impact is within Canada's expectation? Alternatively, will Canada consider potential impact containment through select alternatives, such as:

- Canada leverage its existing SOC services, in place of a Contractor provided compliant SOC;
- Canada leverage its existing SIEM services, in place of a Contractor provided compliant SIEM;
- Canada leverage its existing cryptographic services;
- Reducing the off-line retention requirements from ten (10) to less than or equal to base contract duration;
- Reduction to or clarification of the mandatory Field level network and endpoint controls;
- Canada leverage its Service Desk for Primary access controls, associated with Electoral Officer User IDs (i.e. password reset).

Please provide clarity on how Elections Canada wishes clients to proceed.

Answer:

The requirements stand as stated with the exception of retention requirements. For amended retention requirements, refer to the answers to questions 37 through 42.

## **2.2 Question No. 34**

Question:

RFP- Annex A – Appendix E.9 SCP – SA-11(4)

In the SCP, Canada is requesting that the Contractor perform a manual code review of critical components.

It is recommended that “manual” be removed from this requirement, as to allow the use of tools and automation to provide a more comprehensive review.

Additionally, can Canada please confirm the code review aligns to “new” features or functionality added to the solution components, as typically seen in major release changes?

Answer:

Manual code reviews are uniquely effective at identifying weaknesses that require knowledge of an application's requirements or context which are generally unavailable to automated analytic tools and techniques such as static or dynamic analysis. Control SA-11(8) is a requirement to employ dynamic code analysis tools in addition to the manual code review required in SA-11(4). Note that the requirement for manual code review is specifically in relation to critical components, while the use of dynamic code analysis tools is not restricted to critical components. At the time of the design approval, EC and the Contractor will identify what constitutes critical components. EC

considers critical components to include: components in support of authentication, cryptographic modules, firewalls, IDS/IPS; whose failure would result in a complete failure of the solution. In addition EC may issue a Task Authorisation for manual code reviews for any components that are not identified as critical component, such as for business functions with a High availability requirement.

### **2.3 Question No. 35**

Question:

RFP- Annex A – Appendix E.9 SCP – SC-12 (ASG)

In the SCP, Canada specifies “the Contractor establishes and manages cryptographic keys for required cryptography employed within the information system”.

To mitigate costs and better facilitate compliance with “Government of Canada requirements for key generation, distribution, storage, access, and destruction”, will Canada issues certificates through a Canada managed Certificate Authority and associated process?

Answer:

Elections Canada currently does not manage certificates, thus contractor must be able to provide valid certificates internally or through a 3<sup>rd</sup> party certificate service provider.

### **2.4 Question No. 36 (BO/PCS)**

Question:

RFP-Annex A – 7.01 #3)

In the RFP, Canada references a requirement to maintain “chain of custody”.

Can Canada please provide guidance on Canada’s approved processes and methods for the collection, storage, copying and transition of electronic data or on-line evidence, as to ensure provenance.

Answer:

Elections Canada will not provide guidance or approved processes. The requirements for protecting the chain of custody of data and information on the E-Poll Device and E-Poll Solution to the level expected are described in the Statement of Requirements and the Security Control Profile.

### **2.5 Question No. 37**

Question:

RFP-Annex A – 28.10 – a. & b.

In the RFP, Canada requests the Contractor provides; “a. Long term (10 years) retention audit information; and

b. Long term (10 year) EC Access to audit information without Contractor assistance”.

The retention period exceeds the base contract duration yet the Contractor must allow for access without Contractor assistance. Can Canada please amend 20.10. a. and b. to align with the revised retention period.

Answer:

Section 28.10 accurately states EC’s requirement. The Contractor must ensure that the solution enables EC to meet this requirement. This can be fully accomplished by the Contractor by meeting SOR requirements 284, 284.a, 284.b, 285 and 286 which provides EC with the capability to access the data, without Contractor assistance, beyond the Term of the Contract.

See also answers to questions 38 through 42.

**2.6 Question No. 38**

Question: RFP-Annex A – Appendix E.9 SCP – AT-4(B)

In the SCP, Canada is requesting the Contractor “retain individual training records for 10 years minimum”.

Can Canada amend the requirement to less than or equal to base contract duration?

Answer:

The requirement for Annex A – Appendix E.9 – Security Requirement - SCP - AT-4(B) has been amended - refer to Part 3 Amendments.

**2.7 Question No. 39**

Question: RFP-Annex A – Appendix E.9 SCP – AU-11(A)

In the SCP, Canada is requesting the Contractor “retain audit records for a minimum of 10 years”.

Can Canada amend the requirement to less than or equal to base contract duration?

Answer:

The requirement for Annex A – Appendix E.9 – Security Requirement - SCP-AU-11(A) has been amended - refer to Part 3 Amendments.

**2.8 Question No. 40**

Question: RFP-Annex A – Appendix E.9 SCP – CM-3(E)

In the SCP, Canada is requesting the Contractor “records of configuration controlled changes to the information system for 10 years”.

Can Canada amend the requirement to less than or equal to base contract duration?

Answer:

The requirement for Annex A – Appendix E.9 – Security Requirement - SCP- CM-3(E) has been amended - refer to Part 3 Amendments.

## **2.9 Question No. 41**

Question: RFP-Annex A – Appendix E.9 SCP – PE-3(B) – PE-8(A)

In the SCP, Canada is requesting the Contractor “maintains physical access audit logs for 10 years” and “maintains visitor access records to the facility where the information system resides for 10 years”.

In addition to this duration exceeding the base contract term, common practice is to maintain such information for no more than two (2) years.

Can Canada amend the requirement to two (2) years?

Answer:

The requirement for Annex A – Appendix E.9 – Security Requirement - SCP-PE-3(B) – PE-8 (A) has been amended - refer to Part 3 Amendments.

## **2.10 Question No. 42**

Question: RFP-Annex A – Appendix E.9 SCP – SI-12(A)

In the SCP, Canada is requesting the Contractor “retain information within and output from the information systems for 10 years”.

Can Canada amend the requirement to less than or equal to base contract duration?

Answer:

The requirement for Annex A – Appendix E.9 – Security Requirement - SCP-SI-12(A) has been amended - refer to Part 3 Amendments.

## **2.11 Question No. 43 (PCS)**

Question: RFP-Section C-Evaluation-Table A-Mandatory Technical Evaluation M2 and Part 9 Certificates 5. Annual Revenues

In the mandatory section it says;

### **M2 Corporate & Financial Stability**

The bidder must have an annual gross revenue equal to or greater than \$50 million.

However in the certificate area it says;

### **“5. Annual Revenues**

5.1. The Bidder certifies that in its three most recent fiscal years it had annual gross revenues in excess of \$50,000.00.”

Can Elections Canada please confirm the requirement is \$50 million not 50 thousand?

Answer:

Yes, it is \$50 million. The requirement for Part 9 – Certificates – Section 5 Annual Revenues – Subsection 5.1 has been amended - refer to Part 3 – Amendments.

#### **2.12 Question No. 44**

Question:

Can Elections Canada please confirm the requirement for data sovereignty and that no data may be stored or accessed from outside Canada.

Answer:

As described in section 28.04 of the Statement of Work, no data can be stored or processed outside Canada. For further clarification, this requirement also prohibits access from outside Canada. Properly encrypted data as per SCP may be routed outside of Canada, as long as it is never accessed or processed.

#### **2.13 Question No. 45**

Question:

We understand the critical importance of a secure system associated with the Canadian electoral system. Can Elections Canada please confirm the solution is required to be certified Protected B, and that the protected B certification is not simply limited to the data centre facility hosting the servers, but includes the solution and that it to be managed by security cleared resourced located in Canada.

Answer:

There is no requirement which states that the E-Poll Solution must be “certified Protected B”. The E-Poll Solution must meet or exceed the requirements as stated in the SOW. Requirements are not limited to the data centre facility hosting the servers; they apply to parts of the E-Poll Solution as stated in each requirement. There is no physical restriction on the location of resources which manage the solution, and which do not access information in the E-Poll Solution. Resources accessing E-Poll Solution data must be locating in Canada to be compliant with the data sovereignty requirement that no data can be stored or accessed from outside of Canada.

#### **2.14 Question No. 46**

Question:

Part 5. Security, Financial and other requirements –Section 5.4.1

Section 5.4.1 indicates that; “Material supplied must be new and conform to the latest issue of the applicable drawing, specification and/or part number that is in effect on the RFP closing date.”

Standard maintenance in the industry uses a spares pool approach where items are used to replace broken parts and then are often fixed and placed back into the spare pool. As a result, spares are occasionally not “new”. Please confirm this is acceptable.

Answer:

Part 5 – Security, Financial and Other Requirements - Section 5.4 Condition of Material – Subsection 5.4.1 has been amended – refer to Part 3- Amendments.

**2.15 Question No. 47**

Question: Part 9 Certificates – Section 6

In certifications section 6 it states;

**6. Privacy Act and Personal Information Protection and Electronic Documents Act**  
Voting Services Modernization/Polling Place Process Enhancement  
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6.1. The Bidder hereby certifies that it has reviewed the requirements of this RFP, the resulting contract clauses and, in particular, the requirements concerning the protection of personal information. The Bidder also certifies that it will comply with those terms and ensure that personal information that is managed, accessed, collected, used, disclosed, retained, received, created, or disposed of in order to fulfil the requirements of the Contract shall be treated in accordance with the *Privacy Act*, R.S. 1985, c. P-21, the *Personal Information Protection and Electronic Documents Act*, 2000, c. 5, and Treasury Board privacy policies.

A certification of this type is unusual in bids and contracts. Any breach would be dealt with through the SLA and governance process. We request that the requirement in red be removed from this section and that the requirements be included in the SOW mandatory requirement.

Answer:

No, EC will not amend Part 9 Certificates – Section 6 – Privacy Act and Personal Information Protection and Electronic Documents Act.

**2.16 Question No. 48**

Question: Part 7 – Technical Evaluation Criteria – Response Document 1

Can Canada clarify the response content expectations for Column (I) “Bidder Milestones or” and (J) “Bidder Delivery”?



Answer:

The bidder is expected to respond for each requirement in the evaluation grid as follows.

On the Delivery Schedule tab:

1. In column (I) "Bidder Will Deliver (Y/N)" the bidder must respond with a 'Y' if the bidder commits to meet and deliver the requirement described in column (F) (and continue with steps 2 and 3), or with an 'N' if they will not meet the requirement.
2. When the bidder has responded with 'Y' in column (I) "Bidder Will Deliver (Y/N)", in column (J) "Bidder Milestones or Work/Development packages" the bidder must indicate, per the Bidder's Proposed Plan, in accordance with section 8.06 of the SOW, in which milestone release or which development package they commit to delivering the requirement. The terms "milestone release" and "development package" correspond to either milestones or work packages (as defined by the Bidder) on the Bidder's Proposed Plan.
3. When the bidder has responded with 'Y' in column (I) "Bidder Will Deliver (Y/N)", in column (K) "Bidder Delivery Date" the bidder must indicate, per the Bidder's Proposed Plan, the date the bidder is committing to deliver the requirement.
4. When the bidder has responded with 'Y' in column (I) "Bidder Will Deliver (Y/N)", the Bidder must also respond in the table(s) applicable to that requirement: "B1 - E-Poll Solution", "B2 – E-Poll Service" and "C – POS".

For additional information see Part 7 - Table B – Rated Technical Evaluation Criteria and Table C – Rated Proof of Solution Criteria.

**2.17 Question No. 49**

Question:

Part 7 Technical Evaluation Criteria

Can Canada clarify the "or" found in Column (J), relative to the "Instructions" on this sheet; "If responded Y to (H), insert appropriate information in columns (I) **and** (J)"?

Answer:

The instructions have been updated in amendment 2. Please refer to the answer to question 48 and download the updated version of the excel response document attachment on Buy & Sell.

**2.18 Question No. 50**

Question:

RFP-Annex-A – 28.11.01

Can Canada confirm that “Evidence” associated with the Security Control Profile (SCP) is to be provided through the SA&A process?

Answer:

Confirmed

## **2.19 Question No. 51**

Question:

**Annex A: Statement of Work Section 18.08 User Access Management (UAM) (page 115 of 565)**

In this section, Elections Canada states requirements in points 1 and 2 to create/maintain credentials for ECHQ and RO staff on the Contractor Central Server, and points 3 through 6 to create/maintain credentials for EO and AC to all E-Poll devices.

**Annex A: Statement of Work Section 25.01.05 User (Out) (page 266 of 565)** defines an interface for providing userids/passwords for all PPPE users created at EC.

**Annex A: Statement of Work Section 27.02.03 User (Out) (page 295 of 565)** specifies the data structure and includes a requirement that the userid be a unique field.

a) Is it the intention of Elections Canada that the User (Out) interface should contain only EO and AC staff intended for distribution to the E-Poll devices or does this interface also support the ECHQ and RO staff for use in the scope of the Contractor Central Server and E-Poll devices?

Answer:

The contractor should propose a User access management solution for all user types (ECHQ, RO, AC and EO) as per their solution (both CCS and E-Poll Devices) given that Elections Canada would like to reduce the need for individual creation of user accounts and passwords and would like to reuse information already captured in Elections Canada systems where possible.

## **2.20 Question No. 52**

Question:

RFP-Annex A

Canada has requested support for disconnected, intermittently and continuously connected Polling Place Support. By scenario, can Canada provide an estimate to the number of each Polling Place category?

Answer:

At this time, it is not known what proportion of polling places will operate connected or disconnected, or what proportion of connected sites will experience intermittent connectivity. Further, this may change depending on the event, and over time. The Bidder should assume the full range of possibilities between all polling places operating

without Internet access (resulting in upload/download of all captured data after the completion of polling days) and all polling places being fully connected (resulting in many downloads of updates and uploads of captured data during polling operations).

## **2.21 Question No. 53**

### Question:

Question 7 in amendment 2 appears to be asked by a supplier to the Crown who is concerned with a conflict of interest and the fact they may by bidding threaten the open, fair and transparent procurement process. The answer does not clearly indicate whether they do or do not have an existing perceived conflict. How will Elections Canada ensure that no conflict exists and that the process integrity is maintained?

### Answer:

Given the limited information currently available to Elections Canada and considering that any determination regarding potential conflict of interest must be based on specific facts, the question was answered accordingly. In the absence of those specific detailed facts, it is impossible at this time to determine whether a conflict of interest exists. Elections Canada is of the firm view that the RFP contains sufficient measures to properly address a conflict of interest situation should specific facts become known. The same is to be said about the integrity of the procurement process.

## **Part 3. Amendments**

### **3.1 Amendment to Part 6. Resulting Contract**

Part 6. Resulting Contract - Annex A – Appendix E.9 Security Requirements of the Request for Proposal is hereby amended to read in its entirety as follows:

**Delete:** Annex A – Appendix E.9 – Security Requirements in its entirety.

**Insert:** Annex A – Appendix E.9 – Security Requirements (Revised July 26, 2017) hereby attached to this amendment of the Request for Proposal.

### **3.2 Amendment to Part 7. Technical Evaluation Criteria – Response document #1**

Part 7-Technical Evaluation Criteria - Response document #1 of the Request for Proposal is hereby amended in its entirety as follow:

**Delete:** Part 7. Technical Evaluation Criteria – Response document #1 in its entirety.

**Insert:** Part 7. Technical Evaluation Criteria – Response document #1 (Revised July 27, 2017) hereby attached to this amendment of the Request for Proposal.

### **3.3 Amendment to Part 5. Security, Financial and Other Requirements**

Part 5. Security, Financial and Other Requirements - Section 5.4 Condition of Material – Subsection 5.4.1 of the Request for Proposal is hereby amended to read in its entirety as follows:

**Delete:** Subsection 5.4.1 in its entirety.

**Insert:** 5.4.1 Material supplied must be new and when “reuse” is applicable, conform to the latest issue of the applicable drawing, specification and/or part number that is in effect on the RFP closing date, notwithstanding that Elections Canada shall have the right to approve the reuse material.

### **3.4 Amendment to Part 9. Certificates**

The requirement for Part 9 – Certificates – Section 5 Annual Revenues – Subsection 5.1 of the Request for Proposal is hereby amended in its entirety as follow:

**Delete:** Subsection 5.1 in its entirety.

**Insert:** 5.1 The Bidder certifies that in its three most recent fiscal years it had annual gross revenues in excess of \$50 million.



## Procurement and Contracting Services

30 Victoria Street  
Gatineau, Quebec K1A 0M6  
proposition-proposal@elections.ca

## REQUEST FOR PROPOSAL

The bidder, as identified below, offers to sell to the Chief Electoral Officer of Canada, or any person authorized to act on his/her behalf, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods and services listed herein and on any attached sheets at the prices set out therefore.

<b>Bidder's Name:</b>
<b>Address:</b>
<b>Tel No.:</b>
<b>E-mail:</b>
<b>IN WITNESS WHEREOF</b> , the proposal in response to this Request for Proposal has been duly executed on behalf of the bidder by the hands of its officer duly authorized in that behalf
_____
<i>signature of authorized signatory</i>
_____
<i>print name of authorized signatory</i>
_____
<i>print title of authorized signatory</i>
<b>Date:</b> _____

<b>Office of the Chief Electoral Officer File No.</b>	
ECRS-RFP-16-0167	
<b>Title:</b>	<b>Date:</b>
Voting Services Modernization / Polling Place Process Enhancement	June 22, 2017
<b>Request for Proposal Closing Date:</b>	
September 7, 2017 at 2:00PM (Gatineau time)	

<b>ENQUIRIES – address enquiries to:</b>	
<b>Office of the Chief Electoral Officer of Canada</b> Procurement and Contracting Services 30 Victoria Street Gatineau QC K1A 0M6  proposition-proposal@elections.ca	
<b>Attention:</b>	<b>Tel No.</b>
<b>Ron Shaheen</b> Team Leader Procurement and Contracting Services	819-939-1489

<b>RETURN PROPOSALS TO:</b>
<b>Elections Canada Proposal Receiving Unit</b>
<b>c/o Business Centre</b> 30 Victoria Street Gatineau QC K1A 0M6
<b>PROPOSALS TRANSMITTED BY FACSIMILE OR ELECTRONIC MAIL TO ELECTIONS CANADA WILL NOT BE ACCEPTED</b>

This Request for Proposal (“RFP”) contains the following documents:

**Part 1 – General Information**

**Part 2 – Bidder Instructions**

**Part 3 – Proposal Preparation Instructions**

**Part 4 – Evaluation Procedures and Basis of Selection**

**Part 5 – Security, Financial and Other Requirements**

**Part 6 – Resulting Contract**

- Annex A – Statement of Work;
- Annex B – Pricing Tables;
- Annex C – Supplemental Conditions – Personal Information;
- Annex D – General Conditions – Goods and Services;
- Annex E – Security Requirements Check List;
- Annex F – Sample Task Authorization Form;
- Annex G – Letter of Credit;
- Annex H – Fair Price Certification [if applicable].

**Part 7 – Technical Evaluation Criteria**

- Table A – Mandatory Technical Evaluation Criteria;
- Table B – Rated Criteria;
- Table C – Rated Proof of Solution Criteria;
- Table D – Rated Proposed Plan Criteria;
- Template A – Client Reference Template; and
- Template B – Proposed Project Plan Template

**Part 8 – Financial Evaluation Criteria**

- Annex A – Financial Proposal Table Template.

**Part 9 – Certificates**

# Request for Proposal

## ECRS-RFP-16-0167

### Part 1. General Information

#### 1.1 Code of Conduct for Procurement

1.1.1 To comply with the Code of Conduct for Procurement, the bidder must respond to RFPs in an honest, fair and comprehensive manner, accurately reflect their capacity to satisfy the requirements stipulated in the RFP, which includes the resulting Contract, and submit proposals and enter into contracts only if they will fulfill all obligations of those contracts.

1.1.2 Bidders acknowledge that, to ensure fairness, openness and transparency in the procurement process, the commission of certain acts or offences will render them ineligible to be awarded a contract. Elections Canada will declare non-responsive any proposal in respect of which the information herein requested is missing or inaccurate, or in respect of which the information contained in the certificates contemplated in this Section 1.1 is found to be untrue, in any respect, by Elections Canada. If it is determined, after Contract award, that the bidder made a false declaration or certification, Elections Canada will have the right to terminate for default the resulting Contract. The bidder and any of the bidder's Affiliates will also be required to remain free and clear of any acts or convictions specified herein during the period of any contract arising from this solicitation. Elections Canada may verify the information provided by the bidder, including the information relating to the acts or convictions specified herein, through independent research, use of any government resources or by contacting third parties.

1.1.3 By submitting a proposal, the bidder certifies that no one convicted under any of the provisions under Paragraphs 1.1.3(a) or (b) is to receive any benefit under a contract arising from this solicitation. In addition, the bidder certifies that except for those offences where a criminal pardon or a record suspension has been obtained or capacities restored by the Governor in Council, neither the bidder nor any of the bidder's Affiliates has ever been convicted of an offence under any of the following provisions:

(a) Criminal Code of Canada, R.S.C. 1985, c. C-46:

- i. section 121 (Frauds on the government and contractor subscribing to election fund);
- ii. section 124 (Selling or Purchasing Office);
- iii. section 380 (Fraud committed against Her Majesty);
- iv. section 418 (Selling defective stores to Her Majesty);
- v. section 462.31 (Laundering proceeds of crime);
- vi. section 467.11 to 467.13 (Participation in activities of criminal organization);

- (b) Financial Administration Act, R.S.C. 1985, c. F-11:
  - i. paragraph 80(1)(d) (False entry, certificate or return);
  - ii. subsection 80(2) (Fraud against Her Majesty);
  - iii. section 154.01 (Fraud against Her Majesty);
- (c) Competition Act, R.S.C. 1985, c. C-34:
  - i. section 45 (Conspiracies, agreements or arrangements between competitors);
  - ii. section 46 (Foreign directives);
  - iii. section 47 (Bid Rigging);
  - iv. section 49 (Agreements or arrangements of federal financial institutions);
  - v. section 52 (False or misleading representation);
  - vi. section 53 (Deceptive notice of winning a prize);
- (d) Income Tax Act, R.S.C. 1985, c-1:
  - i. section 239 (False or deceptive statements);
- (e) Excise Tax Act, R.S.C. 1985, c. E-15:
  - i. section 327 (False or deceptive statements);
- (f) Corruption of Foreign Public Officials Act, S.C. 1998, c-34:
  - i. section 3 (Bribing a foreign public official);
- (g) Controlled Drugs and Substance Act, S.C. 1996, c-19:
  - i. section 5 (Trafficking in substance);
  - ii. section 6 (Importing and exporting);
  - iii. section 7 (Production of substance).

1.1.4 In circumstances where a criminal pardon or a record suspension has been obtained or capacities restored by the Governor in Council, the bidder must provide with its proposal a certified copy of confirming documentation from an official source. If such documentation has not been received by the time the evaluation of proposals is completed, Elections Canada will inform the bidder of a time frame within which to provide the documentation. Failure to comply will render the proposal non-responsive.

1.1.5 Bidders understand that Elections Canada may contract outside of the present solicitation process with a supplier who has been convicted of an offence enumerated under Paragraphs 1.1.3 (c) to (g), or with an Affiliate who has been convicted of an offence enumerated under Paragraphs 1.1.3 (c) to (g), when required to do so by law or legal proceedings, or when Elections Canada considers it necessary to the public interest for reasons which include, but are not limited to:

- (a) only one person is capable of performing the Contract;



- (b) emergency;
- (c) national security;
- (d) health and safety; or
- (e) economic harm.

Elections Canada reserves the right to impose additional conditions or measures to ensure the integrity of the procurement process.

- 1.1.6 By submitting a proposal, the bidder certifies that neither the bidder nor any of the bidder's Affiliates have directly or indirectly paid or agreed to pay, and will not directly or indirectly pay a contingency fee to any individual for the solicitation, negotiation or obtaining of the Contract if the payment of the fee would require the individual to file a return under section 5 of the [Lobbying Act](#).
- 1.1.7 For the purposes of this RFP, an Affiliate means a business concern, organization or individual that, directly or indirectly, 1) either one controls or has the power to control the other, or 2) a third party has the power to control both. Indicia of control, include, but are not limited to, interlocking management or ownership, identity of interests among family members, shared facilities and equipment, common use of employees, or a business entity created following the charges or convictions contemplated in this Section which has the same or similar management, ownership, or principal employees as the bidder that is charged or convicted, as the case may be.
- 1.1.8 The bidder acknowledges and agrees that the certifications contemplated must remain valid during the period of the Contract arising from this RFP.

## 1.2 Priority of Requirements

If at any time requirements in this document are in conflict, the following hierarchy of requirements is to be used to resolve the conflict with requirements appearing first in this list taking precedence over those from any following source:

1. Annex A – Appendix E.9 – Security Requirements;
2. Annex A – Appendix E - Statement of Requirements, all other parts
3. Annex A – Appendix I - Service Management; and
4. All other appendices of the SOW

### 1.3 Definitions

Unless the context requires otherwise, the capitalized terms used in this RFP shall have the definitions assigned to them in the Contract.

### 1.4 Summary

The Chief Electoral Officer of Canada (“CEO”), an agent of Parliament, exercises general direction and supervision over the conduct of elections and referendums at the federal level. The CEO heads the Office of the Chief Electoral Officer which is commonly known as Elections Canada.

#### 1.4.1 Requirement

##### (a) Brief Description

Over the past few decades, the Polling Place process in Canadian General Elections has become increasingly complex. In response, an increased number of Election Officers have been hired to manage a manual process highly prescribed by legislation (20% more for the 42nd General Election versus the 41st). Finding, recruiting, training and managing an effective workforce of more than 250,000 people, many of whom are asked to perform specific functions only one day in a four-year Electoral cycle, is one of the biggest challenges faced by EC Returning Officers (RO) in conducting an Electoral Event.

After reviewing feedback from Canadians on their experience at the polls in 2015, and consultations and survey results from Electors, Election Officers, political parties, parliamentarians and other stakeholders, EC concluded that the area of voting operations most in need of improvement is the time-consuming, error prone, manual record-keeping required at the polls, particularly Advance Polls.

One solution that has shown to have positive results in other jurisdictions is the introduction of electronic devices – laptops or tablets (known as “E-Poll Devices”) that automate paperwork and other administrative tasks performed by Election Officers in a single Polling Place, therefore replacing the cumbersome paper Poll Books, voter lists, and forms currently used. These E-Poll Devices will be networked within each individual polling place and will not depend on internet connectivity. Elections Canada has no plans to introduce electronic casting or counting of votes. Polling places will continue to use paper ballots, marked and counted by hand.

The experience of Electoral agencies in Canada and abroad has shown that the use of e-poll devices to automate paperwork and other administrative tasks performed by Election Officers in the Polling Place has provided faster service to Electors, better working conditions for Election Officers, more accuracy and auditability, and improved process integrity. Pairing technology with improvements to Polling Place procedures provides even more benefits.

Recommendations before Parliament, if enacted, will result in amending the *Canada Elections Act* in a manner that will permit further technology-enabled business process improvements related to record keeping. For example, if these recommended legislative changes are approved, E-Poll Devices sharing an electronic List of Electors could enable Electors to vote at any Service Point within a Polling Place. This would be an improvement to the status quo where each Elector must vote at the specific table (Polling Station) to which they are assigned, sometimes standing in line at their table while Election Officers at other tables are not busy.

EC requires Contractor-managed services and a Contractor-delivered and supported solution to assist EC in its objective of enhancing the voter experience by improving administrative processes used by Election Officers at Advance and Ordinary Polls in future Electoral Events. This must be accomplished while adhering to stringent legislative, security, privacy and operational specifications in order that the integrity of the Election process and the reliability of the administrative machinery continues to be maintained, thus ensuring an accessible Electoral framework that Canadians continue to trust and use, thereby contributing to the overall health of Canadian democracy.

E-Poll Devices will improve accuracy, compliance and auditability of important Polling Place transactions. These transactions include voter lookup, verification, identification and required forms (e.g., Oaths), Polling Division and Electoral District assignment by street address, voter history update and other services such as name change, address change and redirecting voters to their correct Polling Place.

E-Poll Devices replace paper-based records with electronic records. This automates the current process that has Election Officers searching for an Elector on the paper list and striking the Elector's name off with a ruler and pencil. Paper ballots, counted by hand, remain an essential part of the process. While introducing E-Poll Devices does not include the introduction of electronic voting or electronic counting of votes, the E-Poll Solution will be used to record the result of the existing hand count of ballots by EOs.

Many Canadian provinces (i.e. British Columbia, Alberta, Saskatchewan, Ontario, Quebec, New Brunswick, and Prince Edward Island) are adopting or considering E-Poll Devices. Such technology will be the norm for almost all Canadians within the next few electoral cycles.

(b) Innovation

The requirements outlined in this solicitation are subject to legislative and other constraints that Elections Canada must adhere to. A very high bar must be set in terms of protection of information and information technology security. EC's business processes are described in the solicitation documentation and are subject to the overarching principles outlined in the *Canada Elections Act*.

The timetable is constrained by an immovable election date and a target “readiness” date well in advance in order to allow for quality control and readiness activities. In that context specific to EC, project risks and ongoing operational risks must be diligently managed.

Nevertheless, EC’s intent is not to stifle innovation. EC expects proposals to contain innovative approaches and leading edge solutions that provide modern outcomes that can be accomplished within the solicitation framework and EC’s mandate and constraints.

EC encourages bidders to propose innovative solutions that can be delivered while demonstrating that:

- all the functional requirements outlined in the solicitation documentation are met in a manner that respects EC legislative constraints and procurement framework,
- modern outcomes are assured, and
- the proposal can be evaluated within the formal evaluation framework of the solicitation.

Bidders are encouraged to seek clarifications from EC during the bid process.

#### 1.4.2 Period of the Contract

- (a) The Contract period will be four years from the Effective Date of the Contract.
- (b) The bidder grants to Elections Canada the irrevocable option to extend the period of the Contract by two additional periods of four years (Optional Term 1 and Optional Term 2) each under the terms and conditions outlined in the Contract.

#### 1.4.3 Security Requirement

There is a security requirement associated with the requirement. For additional information, consult Part 5 – Security, Financial and other Requirements, Part 6 – Resulting Contract and Annex A – Appendix E.9 – Security Requirements.

#### 1.4.4 Trade Agreements

The requirement is subject to the provisions of the World Trade Organization Agreement on Government Procurement (WTO–AGP), the North American Free Trade Agreement (NAFTA), the Agreement on Internal Trade (AIT), the Canada-Chile Free Trade Agreement, the Canada Colombia Free Trade Agreement, the Canada-Honduras Free Trade Agreement, the Canada-Korea Free Trade Agreement, the Canada-Panama Free Trade Agreement and the Canada-Peru Free Trade Agreement.

#### 1.4.5 Federal Contractors Program

Additional information may be found in the [TBS Contracting Policy - Appendix D – The Federal Contractors Program for Employment Equity](#).

There is a Federal Contractors Program (FCP) for employment equity requirement associated with this procurement. Please see Part 6 - Resulting Contract Clauses and Part 9 – Certificates.

### **1.5 Communications Notification**

As a courtesy, Elections Canada requests that the successful bidder notify the Contracting Authority in advance of its intention to make public announcements related to the award of a contract.

### **1.6 Debriefings**

Once the successful bidder has been announced, bidders may request a debriefing on the results of the RFP process. Bidders should make the request to the Contracting Authority within 15 Business Days of receipt of the results of the RFP process. The debriefing may be in writing, by telephone or in person.

## **Part 2. Bidders Instructions**

### **2.1 Instructions and Conditions**

Bidders who submit a proposal agree to be bound by the terms and conditions of this RFP and accept the clauses and conditions of the resulting Contract attached as Part 6 to this RFP.

### **2.2 Procurement Business Number**

Canadian suppliers are required to have a Procurement Business Number (PBN) before the Effective Date of the Contract. Suppliers may register for a PBN in the [Supplier Registration Information system, on the buyandsell.gc.ca](#) Web site. For non-Internet registration, suppliers may contact the InfoLine at 1-800-811-1148 to obtain the telephone number of the nearest [Supplier Registration Agent](#).

### **2.3 Definition of Bidder**

For the purposes of this RFP, “bidder” means the person or entity (or, in the case of a joint venture, the persons or entities) submitting a proposal to perform a contract for goods, services or both. It does not include the parent, subsidiaries or other Affiliates of the bidder, or its subcontractors.

### **2.4 Submission of Proposals**

2.4.1 Elections Canada requires that the bidder or the authorized representative of the bidder complete and sign the first page of the RFP and submit such page with its proposal at the RFP closing date and time. If a proposal is submitted by a joint venture, it must be in accordance with Section 2.17. If the first page of the RFP is not provided with the bidder’s proposal; the

Contracting Authority will request it and the bidder must provide it within the delay prescribed in such request.

2.4.2 It is the bidder's responsibility to:

- (a) obtain clarification of the requirements contained in the RFP, if necessary, before submitting a proposal;
- (b) prepare its proposal in accordance with the instructions contained in the RFP;
- (c) submit a complete proposal by the RFP closing date and time;
- (d) send its proposal only to Elections Canada Proposal Receiving Unit specified on page 1 of this RFP ("Proposal Receiving Unit"). The Proposal Receiving Unit is open from 8:00 a.m. to 4:00 p.m. Monday to Friday and closed on all statutory holidays;
- (e) ensure that the bidder's name and return address, the RFP number, and the RFP closing date and time are clearly visible on the envelope or the parcel(s) containing the proposal; and,
- (f) provide a comprehensible and sufficiently detailed proposal, including all requested pricing details, that will permit a complete evaluation in accordance with the criteria set out in the RFP.

2.4.3 If Elections Canada has provided bidders with multiple formats of a document that forms part of the RFP (for example, a document may be downloaded through the Government Electronic Tendering Service (GETS) but may also be made available on an alternate format), the format downloaded through GETS will take precedence. If Elections Canada posts an amendment to the RFP revising any documents provided to bidders in multiple formats, Elections Canada will not necessarily update all formats to reflect these revisions. It is the bidder's responsibility to ensure that revisions made through any RFP amendment issued through GETS are taken into account in those alternate formats that were not revised as a result of an amendment.

2.4.4 Proposals will remain open for acceptance for a period of not less than 180 Business Days from the RFP closing date. Elections Canada reserves the right to seek an extension of the proposal validity period from all responsive bidders in writing, within a minimum of three Business Days before the end of the proposal validity period. If the extension is accepted by all responsive bidders, Elections Canada will continue with the evaluation of the proposals. If the extension is not accepted by all responsive bidders, Elections Canada will, at its sole discretion, either continue with the evaluation of the proposals of those who have accepted the extension or cancel the RFP.

2.4.5 Proposal documents and supporting information may be submitted in either English or French.

- 2.4.6 Proposals received on or before the stipulated RFP closing date and time will become the property of Elections Canada and will not be returned. All proposals will be treated as confidential, subject to the provisions of the [Access to Information Act, R.S. 1985](#), c. A-1 and the [Privacy Act, R.S. 1985, c. P-21](#).
- 2.4.7 Unless specified otherwise in the RFP, Elections Canada will evaluate only the documentation provided with a bidder's proposal. Elections Canada will not evaluate information such as references to Web site addresses where additional information can be found, or technical manuals or brochures not submitted with the proposal.
- 2.4.8 A proposal cannot be assigned or transferred in whole or in part.

## **2.5 Transmission by Facsimile and Email**

- 2.5.1 Proposals transmitted by facsimile or electronic mail to Elections Canada will not be accepted.

## **2.6 Late Proposals**

- 2.6.1 Elections Canada will return proposals delivered after the stipulated RFP closing date and time, unless they qualify as a delayed proposal as described in Section 2.7.

## **2.7 Delayed Proposals**

- 2.7.1 A proposal delivered to the Proposal Receiving Unit after the RFP closing date and time but before the announcement of the successful bidder or before a contract is entered into may be considered, provided the bidder can prove the delay is due solely to a delay in delivery that can be attributed to the Canada Post Corporation (CPC) (or national equivalent of a foreign country). Purolator Inc. is not considered to be part of CPC for the purposes of delayed proposals. The only pieces of evidence relating to a delay in the CPC system that are acceptable to Elections Canada are:

- (a) a CPC cancellation date stamp;
- (b) a CPC Priority Courier bill of lading; or
- (c) a CPC Xpresspost label,

that clearly indicates that the proposal was mailed at a date that would otherwise have allowed its delivery before the RFP closing date.

- 2.7.2 Misrouting, traffic volume, weather disturbances, labour disputes or any other causes for the late delivery of proposals are not acceptable reasons for the proposal to be accepted by Elections Canada.

2.7.3 Postage meter imprints, whether imprinted by the bidder, the CPC or the postal authority outside Canada, are not acceptable as proof of timely mailing.

## **2.8 Delayed Proposal When Using Courier Companies**

2.8.1 It is the responsibility of the bidder to allow sufficient time to courier companies to deliver the bidder's proposal before the RFP closing date and time. Delays caused by courier companies, including delays caused by postal code errors, cannot be construed as "undue delay in the mail" and will not be accepted as a delayed proposal under Section 2.7.

## **2.9 Customs Clearance**

2.9.1 It is the responsibility of the bidder to allow sufficient time to obtain customs clearance, where required, before the RFP closing date and time. Delays related to the obtaining of customs clearance cannot be construed as "undue delay in the mail" and will not be accepted as a delayed proposal under Section 2.7.

## **2.10 Legal Capacity**

2.10.1 The bidder must have the legal capacity to contract. If the bidder is a sole proprietorship, a partnership or a corporate body, the bidder must provide, if requested by the Contracting Authority, a statement and any requested supporting documentation indicating the laws under which it is registered or incorporated together with the registered or corporate name and place of business. This also applies to bidders submitting a proposal as a joint venture.

## **2.11 Rights of Elections Canada**

2.11.1 Elections Canada reserves the right to:

- (a) reject any or all proposals received in response to the RFP;
- (b) enter into negotiations with bidders on any or all aspects of their proposals;
- (c) accept any proposal in whole or in part without negotiations;
- (d) cancel the RFP at any time;
- (e) reissue the RFP;
- (f) if no responsive proposals are received and the requirement is not substantially modified, reissue the RFP by inviting only the bidders that had submitted a proposal to resubmit proposals within a period designated by Elections Canada; and



- (g) negotiate with the sole responsive bidder to ensure best value to Elections Canada.

## **2.12 Rejection of Proposal**

2.12.1 Elections Canada may reject a proposal where any of the following circumstances is present:

- (a) the bidder is bankrupt or, for whatever reason, its activities are rendered inoperable for an extended period;
- (b) evidence, satisfactory to Elections Canada, of fraud, bribery, fraudulent misrepresentation or failure to comply with any law protecting individuals against any manner of discrimination, has been received with respect to the bidder, any of its employees or any subcontractor included as part of the proposal;
- (c) evidence, satisfactory to Elections Canada, that based on past conduct or behavior, the bidder, a subcontractor or a person who is to perform the Work is unsuitable or has conducted himself/herself improperly;
- (d) Elections Canada has exercised its contractual remedies of suspension or termination for default with respect to a contract with the bidder, any of its employees or any subcontractor included as part of the proposal; and
- (e) Elections Canada determines that the bidder's performance on other contracts, including the efficiency and workmanship as well as the extent to which the bidder performed the Work in accordance with those contracts, is sufficiently poor to jeopardize the successful completion of the requirement of this RFP.

2.12.2 Where Elections Canada intends to reject a proposal pursuant to a provision of Subsection 2.12.1, the Contracting Authority will so inform the bidder and provide the bidder ten Business Days within which to make representations, before making a final decision on the rejection of the proposal.

2.12.3 Elections Canada reserves the right to apply additional scrutiny, in particular, when multiple proposals are received in response to a solicitation from a single bidder or a joint venture. Elections Canada reserves the right to:

- (a) reject any or all of the proposals submitted by a single bidder or joint venture if their inclusion in the evaluation has the effect of prejudicing the integrity and fairness of the process; or
- (b) reject any or all of the proposals submitted by a single bidder or joint venture if their inclusion in the procurement process would distort the solicitation evaluation, and would cause a result that would not reasonably have been expected under prevailing market conditions and/or would not provide good value to Elections Canada.

## **2.13 Communication – Solicitation Period**

- 2.13.1 To ensure the integrity of the competitive procurement process, enquiries and other communications regarding the RFP must be directed only to the Contracting Authority identified in the RFP through email only at: [proposition-proposal@elections.ca](mailto:proposition-proposal@elections.ca). Failure to comply with this requirement may result in the proposal being declared non-responsive.
- 2.13.2 To ensure consistency and quality of information provided to bidders, and subject to Section 2.20, enquiries received and the replies to such enquiries that result in clarifications or modifications to the requirement or that provide additional information related to the requirement will be provided simultaneously to all bidders to which the RFP has been sent, in the same manner in which the RFP was sent, without revealing the sources of the enquiries.

## **2.14 Price Justification**

- 2.14.1 In the event that the bidder's proposal is the sole responsive proposal received, the bidder must provide, on Elections Canada's request, a fair price certification, in the form prescribed by Elections Canada, whereby the bidder certifies that the price offered to Elections Canada for the goods or services:
- (a) is not in excess of the lowest price charged to anyone else, including the bidder's most favoured customer, for the like quality and quantity of the goods, services or both;
  - (b) does not include an element of profit on the sale in excess of that normally obtained by the bidder on the sale of goods, services or both of like quality and quantity; and
  - (c) does not include any provision for discounts to selling agents.
- 2.14.2 Bidders must submit the fair price certification as well as any documentation supporting the fair price certification within the delay prescribed in the request issued pursuant to Subsection 2.14.1. Failure to comply with the request within such delay may result in the proposal being declared non-responsive.

## **2.15 Proposal Costs**

- 2.15.1 No payment will be made for costs incurred in the preparation and submission of a proposal in response to the RFP. Costs associated with preparing and submitting a proposal, as well as any costs incurred by the bidder associated with the evaluation of the proposal, are the sole responsibility of the bidder.

## **2.16 Conduct of Evaluation**

2.16.1 In conducting its evaluation of the proposals, Elections Canada may, but will have no obligation to, do the following:

- (a) seek clarification or verification from bidders regarding any or all information provided by them with respect to the RFP;
- (b) contact any or all client references supplied by bidders to verify and validate any information submitted by them;
- (c) request, before the award of any contract, specific information with respect to bidders' legal status;
- (d) conduct a survey of bidders' facilities and/or examine their technical, managerial, and financial capabilities to determine if they are adequate to meet the requirements of the RFP;
- (e) correct any error in the extended pricing of proposals by using unit pricing and any error in quantities in proposals to reflect the quantities stated in the RFP; in the case of error in the extension of prices, the unit price will govern;
- (f) verify any information provided by bidders through independent research, use of any government resources or by contacting third parties; and
- (g) interview, at the sole costs of bidders, any bidder and/or any or all of the resources proposed by bidders to fulfill the requirement of the RFP.

2.16.2 Bidders must comply with any request related to any of the items listed in Subsection 2.16.1 within the delay prescribed in such request. Failure to comply with the request may result in the proposal being declared non-responsive.

## **2.17 Joint Venture**

2.17.1 A joint venture is an association of two or more parties who combine their money, property, knowledge, expertise or other resources in a single joint business enterprise, sometimes referred as a consortium, to submit together a proposal on a requirement. Bidders who submit a proposal as a joint venture must indicate clearly that it is a joint venture and provide the following information:

- (a) the name of each member of the joint venture;
- (b) the PBN of each member of the joint venture;
- (c) the name of the representative of the joint venture, i.e. the member chosen by the other members to act on their behalf, if applicable; and

(d) the name of the joint venture, if applicable.

2.17.2 If the information is not clearly provided in the proposal, the bidder must provide the information on request from the Contracting Authority within the delay prescribed in such request.

2.17.3 The first page of the RFP and the Contract must be signed by all the members of the joint venture unless one member has been appointed to act on behalf of all members of the joint venture. The Contracting Authority may, at any time, require each member of the joint venture to confirm that the representative has been appointed with full authority to act as its representative for the purposes of the RFP and the Contract. If a contract is awarded to a joint venture, all members of the joint venture will be jointly and severally liable for the performance of the Contract.

## **2.18 Conflict of Interest – Unfair Advantage**

2.18.1 In order to protect the integrity of the procurement process, bidders are advised that Elections Canada may reject a proposal in the following circumstances:

(a) if the bidder, any of its subcontractors, or any of their respective employees or former employees was involved in any manner in the preparation of the RFP or in any situation of conflict of interest or appearance of conflict of interest;

(b) if the bidder, any of its subcontractors, or any of their respective employees or former employees had access to information related to the RFP that was not available to other bidders and that would, in Elections Canada's opinion, give or appear to give the bidder an unfair advantage.

2.18.2 The experience acquired by a bidder who is providing or has provided the goods and services described in the RFP (or similar goods or services) will not, in itself, be considered by Elections Canada as conferring an unfair advantage or creating a conflict of interest, subject however, if such bidders trigger any of the circumstances identified in Paragraphs 2.18.1(a) and (b).

2.18.3 Without limiting in any way the provisions described in Section 2.18.1 and 2.18.2 above, bidders are advised that Elections Canada has engaged the assistance of the following private sector contractors and resources who have provided services including the review of content in preparation of this RFP and/or who have had, or may have had, access to information related to the content of the RFP or other documents related to this RFP.

### Contractors:

Coradix Technology Consulting Ltd.

Eagle Professional Resources Inc.

Excel ITR Inc.

Lajak Technologies Inc.  
Modis Canada Inc.  
Open Frame Technologies Inc.  
Procom Consultants Group Ltd. /Emerion, in joint venture  
Protak Consulting Group Inc.  
S.I. Systems Ltd.  
The Aim Group Inc.  
TRM Technologies Inc.

Resources (last name, first name):

Al-Asaad, Ahmed  
Dan, Maria  
Ellis, Matthew  
English, Peter  
Kouzev, Margarita  
Li, Ching  
O'Neil, Jenny  
Parent, Marc  
Peters, Gordon  
Sobering, Pau  
Tessier, Allan  
Zeidan, Paul

Any proposal that is received from one of the above-noted suppliers, whether as a sole bidder, joint venture, or as a sub-contractor to a bidder; or for which one of the above-noted resources provided any input unto the proposal, will be considered to be in contravention of the Conflict of Interest clauses identified in Section 2.18, and the proposal will be declared non-responsive.

2.18.4 Where Elections Canada intends to reject a proposal under this Section, the Contracting Authority will inform the bidder and provide the bidder an opportunity to make representations before making a final decision. Bidders who are in doubt about a particular situation should contact the Contracting Authority before the RFP closing date. By submitting a proposal, the bidder represents that it does not consider itself to be in conflict of interest nor to have an unfair advantage. The bidder acknowledges that it is within Elections Canada's sole discretion to determine whether a conflict of interest, unfair advantage or an appearance of conflict of interest or unfair advantage exists.

## **2.19 Entire Requirement**

The RFP contains all the relevant information relating to the requirement. Any other information or documentation provided to or obtained by a bidder from any source are not relevant to this RFP. Bidders should not assume that practices used under previous contracts will continue, unless they are

described in the RFP. Bidders should also not assume that their existing capabilities meet the requirements of the RFP simply because they have met previous requirements.

## **2.20 Enquiries**

2.20.1 All enquiries must be submitted in writing to the Contracting Authority no later than twenty Business Days before the RFP closing date. Enquiries received after that time may not be answered.

2.20.2 Bidders should reference as accurately as possible the numbered item of the RFP to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Elections Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked “proprietary” at each relevant item. Items identified as “proprietary” will be treated as such except where Elections Canada determines that the enquiry is not of a proprietary nature. Elections Canada may edit the questions or may request that the bidder do so, so that the proprietary nature of the question is eliminated, and the enquiry can be answered with copies to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Elections Canada.

## **2.21 Applicable Laws**

2.21.1 The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario, subject always to any paramount or applicable federal laws.

2.21.2 Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their proposal, by indicating in their proposal the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the laws of Ontario are acceptable to the bidder.

## **2.22 Volumetric Data**

The volumetric data provided to bidders in this RFP is provided purely for information purposes and will not form part of the resulting Contract. The inclusion of this data in this RFP does not represent a commitment by Elections Canada that Elections Canada’s future usage of the service identified in this RFP will be consistent with this data. Bidders may decide in their sole discretion whether or not to take this information into consideration in preparation for their proposals. Bidders may also decide in their sole discretion how to interpret and use this information during their proposal preparation. Elections Canada will not consider changes to a winning Bidder’s proposal in the event that the actual volumetric data deviates from the one provided in this RFP. Elections Canada will not be liable or responsible in any way for the accuracy of such data or for any business loss the winning Bidder may claim during the performance of the Contract due to fluctuations of the transaction volumes.

## **2.23 Supply Chain Security Information Non-Disclosure Agreement**

By submitting a proposal, the bidder agrees to the terms of the non-disclosure agreement below (the “Non-Disclosure Agreement”):

- 2.23.1 The bidder agrees to keep confidential any information it receives from Elections Canada regarding Elections Canada’s assessment of the bidder’s Supply Chain Security Information (the “Sensitive Information”) including, but not limited to, which aspect of the Supply Chain Security Information is subject to concern, and the reasons for Elections Canada’s concerns.
- 2.23.2 Sensitive Information includes, but is not limited to, any documents, instructions, guidelines, data, material, advice or any other information whether received orally, in printed form or otherwise and whether or not that information is labeled as classified, proprietary or sensitive.
- 2.23.3 The bidder agrees that it will not reproduce, copy, divulge, release or disclose, in whole or in part, in whatever way or form any Sensitive Information to any person other than a person employed by the bidder who has a security clearance commensurate with the level of Sensitive Information being accessed, without the prior written consent of the Contracting Authority. The bidder agrees to immediately notify the Contracting Authority if any person, other than those permitted by this section, accesses the Sensitive Information at any time.
- 2.23.4 All Sensitive Information will remain the property of Elections Canada and must be returned to the Contracting Authority or destroyed, at the option of the Contracting Authority, if requested by the Contracting Authority, within 30 Business Days following that request.
- 2.23.5 The bidder agrees that a breach of this Non-Disclosure Agreement may result in disqualification of the bidder at the RFP stage, or immediate termination of the resulting Contract. The bidder also acknowledges that a breach of this Non-Disclosure Agreement may result in a review of the bidder’s security clearance and review of the bidder’s status as an eligible bidder for other requirements.
- 2.23.6 This Non-Disclosure Agreement remains in force indefinitely.

## **Part 3. Proposal Preparation Instructions**

### **3.1. Proposal Preparation Instructions**

- 3.1.1 Elections Canada requests that bidders provide their proposal in separately bound and sealed sections as follows:

Section I: Supply Chain Security Information four (4) hard copies and one (1) soft copy on USB;

Section II: Technical Proposal four (4) hard copies and one (1) soft copy on USB;

Section III: Financial Proposal (1) one hard copy and one (1) soft copy on USB; and

Section IV: Certifications (1) one hard copy.

3.1.2 If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

3.1.3 Prices must appear in the financial proposal only. No prices must be indicated in any other section of the proposal.

3.1.4 Elections Canada requests that bidders follow the format instructions described below in the preparation of their proposal:

(a) use 8.5 x 11 inch (216 mm x 279 mm) paper; and

(b) use a numbering system that corresponds to the RFP.

3.1.5 In the event that a bidder fails to provide the number of copies required pursuant to Subsection 3.1.1 the Contracting Authority will contact the bidder and provide the bidder with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the proposal non-responsive.

3.1.6 To assist in reaching the objective set out in the Policy on Green Procurement, bidders are encouraged to:

(a) use paper containing fibre certified as originating from a sustainably managed forest and/or containing a minimum 30% recycled content; and

(b) use an environmentally preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

## **3.2 Section I – Supply Chain Security Information**

3.2.1 Bidders must submit specific information regarding each component of their proposed Voting Services Modernization / Polling Place Process Enhancement supply chain. This information is referred to as Supply Chain Security Information. This information will be used by Elections



Canada to assess whether, in its opinion, a bidder's proposed supply chain creates the possibility that the bidder's proposed solution could compromise or be used to compromise the security integrity of Elections Canada's equipment, firmware, software, systems or information in accordance with the Supply Chain Security Information Assessment identified in Part 4, subsection 4.2.1.

- 3.2.2 The bidders' compliance with the Supply Chain Security Information provided to Elections Canada is subject to verification by Elections Canada during the proposal evaluation period and after award of a contract. The Contracting Authority will have the right to ask at any time for additional information to verify bidders' compliance with the Supply Chain Security Information before award of a contract. The proposal will be declared non-responsive if any Supply Chain Security Information provided by the bidder is untrue, whether made knowingly or unknowingly. Failure to comply with the request of the Contracting Authority for additional information within the prescribed delay will also render the proposal non-responsive.
- 3.2.3 The Supply Chain Security Information detailed in Section 4.2 should include submission of IT Product List and Subcontractor List Form, as well as the Network Diagram and any additional information required by the Contracting Authority to ensure a complete assessment; and should be completed and submitted with the proposal but may be submitted afterwards. If any of the Supply Chain Security Information is not completed and submitted as requested at the time of bid submission, the Contracting Authority will so inform the bidder and provide the bidder with a time frame to meet the requirement by providing all required information. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the proposal non-responsive.

### **3.3 Section II – Technical Proposal**

- 3.3.1 In their technical proposal, bidders should demonstrate their understanding of the requirements contained in the RFP and explain how they will meet the requirements of the SOW and carry out the Work in a thorough, concise and clear manner.
- 3.3.2 The technical proposal should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the proposal will be evaluated which are set out in Part 7 – Technical Evaluation Criteria. Simply repeating the statement contained in the RFP is not sufficient. In order to facilitate the evaluation of the proposal, Elections Canada requests that bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, bidders may refer to different sections of their proposal by identifying the specific paragraph and page number where the subject topic has already been addressed.

- 3.3.3 The details of any client references requested under Part 7 – Technical Evaluation Criteria should be submitted with the proposal. If any of the required information is not submitted as requested, in the event that Elections Canada decides to contact client references, the Contracting Authority will so inform the bidder and provide the bidder with a time frame within which to meet the requirement. If the bidder fails to comply with the request of the Contracting Authority and meet the requirement within that time period, the proposal will be deemed non-responsive.
- 3.3.4 Bidders will not be permitted to modify any aspect of their technical proposal as a result of any revised Supply Chain Security Information submitted as per subsection 4.2.1.

### **3.4 Section III – Financial Proposal**

Bidders must submit their financial proposal in accordance with Part 8 – Financial Evaluation Criteria. The total amount of applicable sales tax must be shown separately, if applicable.

### **3.5 Section IV – Certificates**

- 3.5.1 The certificates under Part 9 must be completed by bidders in accordance with this Section 3.5. Bidders must provide the required certifications to be awarded a contract. Elections Canada will declare a proposal non-responsive if the required certifications are not completed and submitted as requested.
- 3.5.2 The Bidders' compliance with the certifications provided to Elections Canada is subject to verification by Elections Canada during the proposal evaluation period and after award of a contract. The Contracting Authority will have the right to ask for additional information to verify bidders' compliance with the certifications before award of a contract. The proposal will be declared non-responsive if any certification made by the bidder is untrue, whether made knowingly or unknowingly. Failure to comply with the certifications or to comply with the request of the Contracting Authority for additional information will also render the proposal non-responsive.
- 3.5.3 The certificates under Part 9 should be completed and submitted with the proposal but may be submitted afterwards. If any of these required certificates is not completed and submitted as requested, the Contracting Authority will so inform the bidder and provide the bidder with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the proposal non-responsive.

## **Part 4. Evaluation Procedures and Basis of Selection**

### **4.1 General Evaluation Procedures**

- 4.1.1 Proposals will be assessed in accordance with the entire requirement of the RFP including the technical and financial evaluation criteria.
- 4.1.2 An evaluation team composed of representatives from Elections Canada will evaluate the proposals.

## **4.2 Supply Chain Security Information Assessment**

4.2.1 Bidders must submit with their proposal, the following Supply Chain Security Information:

4.2.1.1 IT Product List: Bidders must identify the products over which Elections Canada's data would be transmitted and/or stored that will be used and/or installed to perform any part of the Work described in the SOW, as well as the following in regards to each product:

- (a) Location: identify where the product is interconnected within any given network for Elections Canada's data (identify the service delivery points or nodes, such as points of presence, third party locations, data centre facilities, operations center, security operations center, internet or other public network peering points, etc.);
- (b) Product Type: identify the generally recognized description used by industry such as appliance, hardware, software, etc. Components of an assembled Product, such as a module or card assembly, must be provided for all layer 3 internetworking devices;
- (c) IT Component: identify the generally recognized description used by industry such as firewall router, switch, server, security appliance, etc.;
- (d) Product Model Name or Number: identify the advertised name or number of the product by the product manufacturer and/or software publisher;
- (e) Description and Purpose of the Product: identify the advertised description or purpose by the product manufacturer of the product and/or software publisher and the intended usage or role in the Work described in the SOW;
- (f) Identify the product manufacturer and/or software publisher; and
- (g) Name of any subcontractor that will provide the product.

4.2.1.2 Bidders are requested not to repeat multiple iterations of the same product (e.g. if the serial number and/or the colour is the only difference between two products, they are considered the same product with regards to Supply Chain Security Information.

4.2.1.3 Network Diagrams: Bidders must provide one or more conceptual network diagrams that collectively show the complete network proposed to be used to deliver the services. The network diagrams are only required to include portions of the bidder's network (and its

subcontractor' network(s)) over which Elections Canada's data, would be transmitted in performing any resulting Contract. As a minimum the network diagram must show the following key nodes for the delivery of the services under the resulting Contract of this solicitation process to the role of the bidder and, if applicable, subcontractor(s):

- (a) Service delivery points;
- (b) Core network;
- (c) Subcontractor network (specifying the name of the subcontractor as listed in the List of Subcontractors);
- (d) The node interconnections, if applicable
- (e) Any node connections with the Internet; and
- (f) For each node, a cross-reference to the product that will be deployed within that node, using the line item number from the product list.

4.2.1.4 List of Subcontractors: Bidders must provide a list of any subcontractors that could be used to perform any part of the Work (including subcontractors affiliated or otherwise related to the bidder) pursuant to any resulting Contract. The list must include at a minimum:

- (a) The name of the subcontractor;
- (b) The address of the subcontractor's headquarters;
- (c) The portion of the Work that would be performed by the subcontractor; and
- (d) The location(s) where the subcontractor would perform the Work.

This list must identify all third parties who may perform any part of the Work, whether they would be subcontractors to the bidder, or subcontractors to subcontractors of the bidder down the chain. Any subcontractor that could have access to Elections Canada's data must be identified. For the purposes of this requirement, a third party who is merely a supplier of goods to the bidder, but who does not perform any portion of the Work, is not considered to be a subcontractor. Subcontractors would include, for example, technicians who might be deployed or maintain the bidder's solution. If the bidder does not plan to use any subcontractors to perform any part of the Work, the bidder is requested to indicate this in its response.

4.2.2 In conducting its assessment:

- (a) Elections Canada may request from the bidder any additional information that Elections Canada requires to conduct a complete security assessment of the Supply Chain Security Information. The bidder will have two Business Days (or a longer period if specified in writing by the Contracting Authority) to provide the necessary information to Elections Canada. Failure to meet this deadline will result in the proposal being deemed non-responsive.

- (b) Elections Canada may use any government resources or consultants to conduct the assessment and may contact third parties to obtain further information. Elections Canada may use any information, whether it is included in the proposal or comes from another source, that Elections Canada considers necessary to conduct a comprehensive assessment of the Supply Chain Security Information.

4.2.3 If, in Elections Canada's opinion, any aspect of the Supply Chain Security Information, if used in a solution, creates the possibility that the bidder's solution could compromise or be used to compromise the security of Elections Canada's equipment, firmware, software, systems or information:

- (a) Elections Canada will notify the bidder in writing and identify which aspect(s) of the Supply Chain Security Information is subject to concern(s) or cannot be assessed (for example, proposed future releases of products cannot be assessed). Any further information that Elections Canada might be able to provide to the bidder regarding its concerns will be determined based on the nature of the concerns. In some situations, for reasons of national security, it may not be possible for Elections Canada to provide further information to the bidder; therefore, in some circumstances, the bidder will not know the underlying reasons for Elections Canada's concerns with respect to a product, subcontractor or other aspect of the bidder's Supply Chain Security Information.
- (b) The notice will provide the bidder with one opportunity to submit revised Supply Chain Security Information within the 10 Business Days following the day on which Elections Canada's written notification is sent to the bidder, (or a longer period specified in writing by the Contracting Authority).
- (c) Bidders will not be permitted to modify any aspect of their technical or financial proposal as a result of any revised Supply Chain Security Information submitted. However, a bidder may choose to withdraw from the evaluation instead of revising its Supply Chain Security Information.
- (d) If the bidder submits revised Supply Chain Security Information within the allotted time, Elections Canada will perform a second assessment. If Elections Canada determines that any aspect of the bidder's revised Supply Chain Security Information could compromise or be used to compromise the security of Elections Canada's equipment, firmware, software, systems or information, no further opportunities to revise the Supply Chain Security Information will be provided and the proposal will be deemed non-responsive.

4.2.4 By participating in this process, the bidder acknowledges that the nature of information technology is such that new vulnerabilities, including security vulnerabilities, are constantly being identified. Also, the bidder acknowledges that Elections Canada's security assessment does not involve the assessment of a proposed solution.

As a result:

- (a) At any time during the subsequent stages of this solicitation process, Elections Canada may advise a bidder that some aspect(s) of its Supply Chain Security Information has become the subject of security concerns. At that point, Elections Canada may notify the bidder and provide the bidder with an opportunity to revise its Supply Chain Security Information, using the same process described above.
- (b) During the performance of the resulting Contract, if Elections Canada has concerns regarding certain products, designs or subcontractors originally included in the Supply Chain Security Information, the terms and conditions of that Contract will govern the process for addressing those concerns.

4.2.5 Once a bidder has passed the Supply Chain Security Information Assessment, no modifications are permitted to the Supply Chain Security Information except as circumstances require, as determined by Elections Canada. Given that not all the exceptional circumstances can be foreseen, whether changes may be made and the process governing those changes will be determined by Elections Canada at its sole discretion on a case-by-case basis.

### **4.3 Technical Evaluation**

4.3.1 The mandatory technical evaluation criteria are set out in Table A of Part 7 – Technical Evaluation Criteria.

4.3.2 The rated technical evaluation criteria are set out in Tables B, C and D of Part 7 – Technical Evaluation Criteria.

4.3.3 Client References

- (a) Elections Canada may decide to contact any or all client references for all technical evaluation criteria or those for specific technical evaluation criteria only. If Elections Canada chooses to conduct client reference checks for any given technical evaluation criteria, it will contact the client references for those identified technical evaluation criteria of all remaining responsive bidders at that point.
- (b) Elections Canada will make only three attempts over a maximum of five Business Days from the first attempt to contact a client reference provided with the bidder's proposal (the "Original Contact Info"). If Elections Canada is not successful in reaching a client reference after three attempts using the Original Contact Info, the Contracting Authority may ask the bidder for alternative contact information for that same client reference. Elections Canada will make only three attempts over a maximum of five Business Days from the first attempt to contact a client reference using the alternative contact information. The bidder will only be given the

opportunity to provide alternative contact information one time for each client reference.

- (c) If Elections Canada is unsuccessful in obtaining a response from a client reference (either through the Original Contact Info or the alternative contact information), after making such attempts, the proposal will be deemed non-responsive and will not be given further consideration.
- (d) Wherever information provided by a client reference differs from the information supplied by the bidder, the information supplied by the client reference will be the information evaluated.
- (e) Points will not be allocated and/or a bidder will not meet the mandatory experience requirement (as applicable) if (1) the reference client states he or she is unable or unwilling to provide the information requested, (2) the reference client is not a customer of the bidder itself, or (3) the client is an affiliate of the bidder or of the client is any other entity that does not deal at arm's length with the bidder.

4.3.4 Compliant Bidders following Phase 1 Mandatory Technical Evaluation will be evaluated in Phase 2 Rated Technical Evaluation which consists of the Rated Technical Evaluation Criteria, the Rated Proof of Solution criteria, and the Rated Proposed Project Plan as set out in Tables B, C and D of Part 7 – Technical Evaluation Criteria. Compliant Bidders following the completion of Phase 2 will be evaluated in Phase 3 – Financial Evaluation.

4.3.5 Each proposal will be rated by assigning a score to the Rated Criteria. Bidders who fail to submit complete bids with all the information requested by this solicitation will be rated accordingly.

4.3.6 The Proof of Solution (PoS) provides a bidder with an opportunity to demonstrate the extent to which their product or service is ready for use. The PoS will be evaluated following the Rated Criteria as part of Phase 2.

4.3.7 The Proposed Plan provides a bidder with an opportunity to demonstrate how it proposes to perform any necessary customization and configuration to implement the proposed E-Poll Solution. The Proposed Plan will be evaluated following the Rated Criteria as part of Phase 2.

#### **4.4 Financial Evaluation**

4.4.1 The mandatory financial evaluation criteria are set out in Part 8 – Financial Evaluation Criteria.

#### **4.5 Basis of Selection**

4.5.1 A proposal must comply with all the requirements of the RFP. If it is determined that a proposal does not comply with any of the requirements of the RFP, such proposal will be deemed non-responsive and will not be given further consideration.

4.5.2 The evaluation and selection process will be conducted in the following phases:

Phase 1 – Mandatory Technical Evaluation;

Phase 2 – Rated Technical Evaluation (comprising Rated Criteria, Rated PoS Criteria and Rated Proposed Plan);

Phase 3 – Financial Evaluation

Phase 4 – Determination of Highest Ranked Bidder

In the event evaluators are made aware of information in one Phase that contradicts information contained in a previous Phase, evaluators reserve the right to re-evaluate that portion of the previous Phase and adjust the previously adjudicated score accordingly. If such re-evaluation results in the bidder's proposal being non-responsive for the re-evaluated Phase, the proposal will be assessed as non-responsive and given no further consideration.

#### 4.5.3 Phase 1 – Mandatory Technical Evaluation

In Phase 1, all proposals will be evaluated for their compliance with the mandatory technical evaluation criteria set out in Table A of Part 7 – Technical Evaluation Criteria. Any proposal that fails to meet any of the mandatory technical evaluation criteria will be deemed non-responsive and will not be given further consideration.

#### 4.5.4 Phase 2 – Rated Technical Evaluation

In Phase 2, the proposals that are deemed responsive in Phase 1 will be evaluated against the evaluation criteria set out in Tables B, C and D of Part 7 – Technical Evaluation Criteria (the "Phase 2 Proposal").

If any Phase 2 Proposal does not include delivery of all Category 4 requirements on or before the maximum delivery date specified in the SOR, such proposal will be deemed non-responsive and will not be given further consideration. The rating is performed on a scale of 300 points (100 points for each of: Rated Criteria, Rated PoS Criteria and Rated Proposed Plan Criteria).

#### 4.5.5 Phase 3 – Financial Evaluation

In Phase 3, the proposals that are deemed responsive in Phases 1, and 2 will be evaluated against the mandatory financial evaluation criteria set out in Part 8 – Financial Evaluation Criteria.



The price of the proposal will be evaluated in Canadian dollars. Applicable sales tax must be excluded. Canadian customs duties and excise taxes are, where applicable, to be included.

#### 4.5.6 Phase 4 – Determination of Highest Ranked Bidder

In Phase 4, a combined evaluation score for those proposals deemed responsive in Phases 1, 2 and 3 (the “Phase 4 Proposal”) will be determined in accordance with the following formula:

$$\frac{\text{TECHNICAL PROPOSAL SCORE X 0.75}}{\text{MAXIMUM NUMBER OF POINTS}} + \frac{\text{LOWEST PRICE X 0.25}}{\text{BIDDER'S PRICE}} = \text{COMBINED EVALUATION SCORE}$$

The bidder with the Phase 4 Proposal with the highest combined evaluation score will be considered for the award of a contract.

4.5.7 If more than one bidder is ranked first because of identical scores, then the bidder with:

the Highest Technical Proposal Score will become the highest ranked bidder and will be considered for the award of a contract.

## **Part 5. Security, Financial and Other Requirements**

### **5.1 Security Requirement**

5.1.1 Before award of a contract, the following conditions must be met:

- (a) the bidder must hold a valid organization security clearance as indicated in Part 6 – Resulting Contract;
- (b) the bidder’s personnel requiring access to classified or protected information, assets or sensitive work site(s) must meet the security requirement as indicated in Part 6 – Resulting Contract;
- (c) the bidder must provide the name of all individuals who will require access to classified or protected information, assets or sensitive work sites.

5.1.2 Elections Canada will not delay the award of a contract to allow bidders to obtain the required clearance.

### **5.2 Financial Capability**

5.2.1 The bidder must have the financial capability to fulfill this requirement. To determine the bidder’s financial capability, the Contracting Authority may, by written notice to the bidder, require the submission of some or all of the financial information detailed below during the evaluation of proposals. The bidder must provide the following information to the

Contracting Authority within 10 Business Days of the request or as specified by the Contracting Authority in the notice:

- (a) Audited financial statements, if available, or the unaudited financial statements (prepared by the bidder's outside accounting firm, if available, or prepared in-house if no external statements have been prepared) for the bidder's last three fiscal years, or for the years that the bidder has been in business if this is less than three years (including, as a minimum, the Balance Sheet, the Statement of Retained Earnings, the Income Statement and any notes to the statements).
- (b) If the date of the financial statements in 5.2.1 (a) above is more than five months before the date of the request for information by the Contracting Authority, the bidder must also provide, unless this is prohibited by legislation for public companies, the last quarterly financial statements (consisting of a Balance Sheet and a year-to-date Income Statement), as of two months before the date on which the Contracting Authority requests this information.
- (c) If the bidder has not been in business for at least one full fiscal year, the following must be provided:
  - i. the opening Balance Sheet on commencement of business (in the case of a corporation, the date of incorporation); and
  - ii. the last quarterly financial statements (consisting of a Balance Sheet and a year-to-date Income Statement) as of two months before the date on which the Contracting Authority requests this information.
- (d) A certification from the Chief Financial Officer or an authorized signing officer of the bidder that the financial information provided is complete and accurate.
- (e) A confirmation letter from all of the financial institution(s) that have provided short-term financing to the bidder outlining the total of lines of credit granted to the bidder and the amount of credit that remains available and not drawn upon as of one month prior to the date on which the Contracting Authority requests this information.
- (f) A detailed monthly Cash Flow Statement covering all the bidder's activities (including the requirement) for the first two years of the requirement that is the subject of the RFP, unless this is prohibited by legislation. This statement must detail the bidder's major sources and amounts of cash and the major items of cash expenditures on a monthly basis, for all the bidder's activities. All assumptions made should be explained as well as details of how cash shortfalls will be financed.
- (g) A detailed monthly Project Cash Flow Statement covering the first two years of the requirement that is the subject of the RFP, unless this is prohibited by legislation.

This statement must detail the bidder's major sources and amounts of cash and the major items of cash expenditures, for the requirement, on a monthly basis. All assumptions made should be explained as well as details of how cash shortfalls will be financed.

- 5.2.2 If the bidder is a joint venture, the financial information required by the Contracting Authority must be provided by each member of the joint venture.
- 5.2.3 If the bidder is a subsidiary of another company, then any financial information in 5.2.1 (a) to (f) above required by the Contracting Authority must be provided by the ultimate parent company. Provision of parent company financial information does not satisfy the requirement for the provision of the financial information of the bidder, and the financial capability of a parent cannot be substituted for the financial capability of the bidder itself unless an agreement by the parent company to sign a "Parental Guarantee", as drawn up by Elections Canada, is provided with the required information.
- 5.2.4 Elections Canada reserves the right to request from the bidder any other information that Elections Canada requires to conduct a complete financial capability assessment of the bidder.
- 5.2.5 If the bidder provides the information required above to Elections Canada in confidence while indicating that the disclosed information is confidential, then Elections Canada will treat the information in a confidential manner as permitted by Paragraphs 20(1) (b) and (c) of the [Access to Information Act, R.S., 1985, c. A-1](#).
- 5.2.6 In determining the bidder's financial capability to fulfill this requirement, Elections Canada may require the bidder to provide security, at the bidder's sole expense, such as an irrevocable letter of credit from a registered financial institution drawn in favour of Elections Canada, a performance guarantee from a third party or some other form of security, as determined by Elections Canada.

### **5.3 Insurance Requirements**

- 5.3.1 Bidders are responsible for deciding if insurance coverage is necessary to fulfill the obligations under the resulting Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by bidders is at their own expense and for their own benefit and protection. It does not release the successful bidder from or reduce its liability under the resulting Contract.

### **5.4 Condition of Material**

- 5.4.1 Material supplied must be new and when "reuse" is applicable, conform to the latest issue of the applicable drawing, specification and/or part number that is in effect on the RFP

closing date, notwithstanding that Elections Canada shall have the right to approve the reuse material.



## **Voting Services Modernization / Polling Place Process Enhancement**

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### **Statement of Work (SOW)**

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## **1. BACKGROUND**

### **1.01. Background Information**

The Chief Electoral Officer of Canada, an agent of Parliament, exercises general direction and supervision over the conduct of elections and referendums at the federal level and heads the Office of the Chief Electoral Officer, commonly known as Elections Canada (EC).

Over the past few decades, the Polling Place process in Canadian General Elections has become increasingly complex. In response, an increased number of Election Officers have been hired to manage a manual process highly prescribed by legislation (20% more for the 42nd General Election versus the 41st). Finding, recruiting, training and managing an effective workforce of more than 250,000 people, many of whom are asked to perform specific functions only one day in a four-year Electoral cycle, is one of the biggest challenges faced by EC Returning Officers (RO) in conducting an Electoral Event.

After reviewing feedback from Canadians on their experience at the polls in 2015, and consultations and survey results from Electors, Election Officers, political parties, parliamentarians and other stakeholders, EC concluded that the area of voting operations most in need of improvement is the time-consuming, error prone, manual record-keeping required at the polls, particularly Advance Polls.

The experience of Electoral agencies in Canada and abroad has shown which aspects of Election administration can be improved through judicious use of technology. Used in the right ways, technology can provide faster service to Electors, better working conditions for Election Officers, more accuracy and auditability, and improved process integrity. Pairing technology with improvements to Polling Place procedures provides even more benefits.

One solution that has shown to have positive results in other jurisdictions is the introduction of electronic devices – laptops or tablets that automate paperwork and other administrative tasks performed by Election Officers in the Polling Place, therefore replacing the cumbersome paper Poll Books, voter lists, and forms currently used.

EC requires Contractor-managed services and a Contractor-delivered and supported solution to assist EC in its objective of enhancing the voter experience by improving administrative processes used by Election Officers at Advance and Ordinary Polls in future Electoral Events. This must be accomplished while adhering to stringent legislative, security, privacy and operational specifications in order that the integrity of the Election process and the reliability of the administrative machinery continues to be maintained, thus ensuring an accessible Electoral

framework that Canadians continue to trust and use, thereby contributing to the overall health of Canadian democracy.

The key point-of-service tool that will support the enhancement of the voter experience and streamline the administrative processes is the “E-Poll Device”. E-Poll Devices support more efficient and faster processing of Electors, while increasing accuracy, compliance and auditability of important Polling Place transactions, including voter lookup, verification, identification and required forms (e.g., Oaths), Polling Division and Electoral District assignment by street address, voter history update and other services such as name change, address change and redirecting voters to their correct Polling Place.

E-Poll Devices replace paper-based records with electronic records. This automates the current process that has Election Officers searching for an Elector on the paper list and striking the Elector’s name off with a ruler and pencil. Paper ballots, counted by hand, remain an essential part of the process. While introducing E-Poll Devices does not include the introduction of electronic voting or electronic counting of votes, the E-Poll Solution will be used to record the result of the existing hand count of ballots by EOs.

Recommendations before Parliament, if enacted, will result in amending the *Canada Elections Act* in a manner that will permit further technology-enabled business process improvements related to record keeping. For example, if these recommended legislative changes are approved, E-Poll Devices sharing an electronic List of Electors could enable Electors to vote at any Service Point within a Polling Place. This would be an improvement to the status quo where each Elector must vote at the specific table (Polling Station) to which they are assigned, sometimes standing in line at their table while Election Officers at other tables are not busy.

Many Canadian provinces (i.e. British Columbia, Alberta, Saskatchewan, Ontario, Quebec, New Brunswick, and Prince Edward Island) are adopting or considering E-Poll Devices. Such technology will be the norm for almost all Canadians within the next few electoral cycles.

## **2. STATEMENT OF PURPOSE**

In this document, the term “Polling Place Process Enhancement Project” or “PPPE Project” refers to EC’s initiative to implement the E-Poll Solution. The term “E-Poll Solution” refers to all product and service components of the Contractor's solution to meet EC’s requirements, while the term “E-Poll Device” refers to the components that will be used by Election Officers (EOs) at the Polling Place.

The PPPE Project seeks to implement a technology-enabled approach, including implementation of re-engineered business processes and redefined roles and responsibilities for Election Officers, which is compliant with legislation, and which will improve service delivery to all stakeholders in a cost effective and efficient manner. While the primary objective is enhancing the voter experience, there are secondary benefits for all stakeholders including Election Officers, Candidates, political parties and ECHQ staff.

### **3. OBJECTIVES**

In keeping with The Chief Electoral Officer's efforts to improve accessibility, convenience, efficiency and integrity, EC's procurement will result in the implementation of the E-Poll Solution to meet the following objectives:

- To enhance the in-person voting experience at Advance and Ordinary Polls through process improvements and introduction of technology at the polls. The process improvements include the reduction of onerous administrative poll activities such as: electronic capture and dissemination of the Statement of the Electors Who Voted to Candidates' Representatives and completing multiple sets of paperwork manually with the same information, so it can be used by multiple stakeholders. This objective can be measured by a reduction in time spent on these administrative activities, reduced wait times for voters, and more effective options for managing peak voting times during an event.
- To reduce record-keeping errors by automating complex manual processes and paperwork. This objective is measured by audit and compliance reports on the quality of record keeping.
- To improve the working environment for Election Officers and to ensure a high level of Elector and Election Officer satisfaction with all aspects of the E-Poll Solution user experience. This objective can be measured by stakeholder feedback and satisfaction surveys and Election Officer retention and return rates.
- To maintain sufficient flexibility in a final solution to be able to modify processes to address future legislative changes. The likelihood of achieving this objective can be assessed by:
  - reviewing the customizability and configurability of the E-Poll Solution,
  - reviewing the Contractor's value for money strategies, policies and best practises in lifecycle management plans of the provisioned E-Poll Solution, and
  - assessing future task authorizations for unscheduled work.
- To increase transparency and provide real-time information about poll operations to EC. This objective can be measured by improved speed in detecting and resolving Polling Place issues.



- To enable evidence-based decision making on future improvement or transformation initiatives through analytics and business intelligence collected with the E-Poll Solution.

#### **4. VISION STATEMENT**

There is an opportunity for EC to propose and act upon changes to legislation, apply increasingly effective technology, and enhance Polling Place processes to improve services in a way that significantly enhances the voter experience, improves the working conditions for Election Officers, provides better service to Candidates, and improves the ability and agility of ROs to manage peaks and valleys in demand.

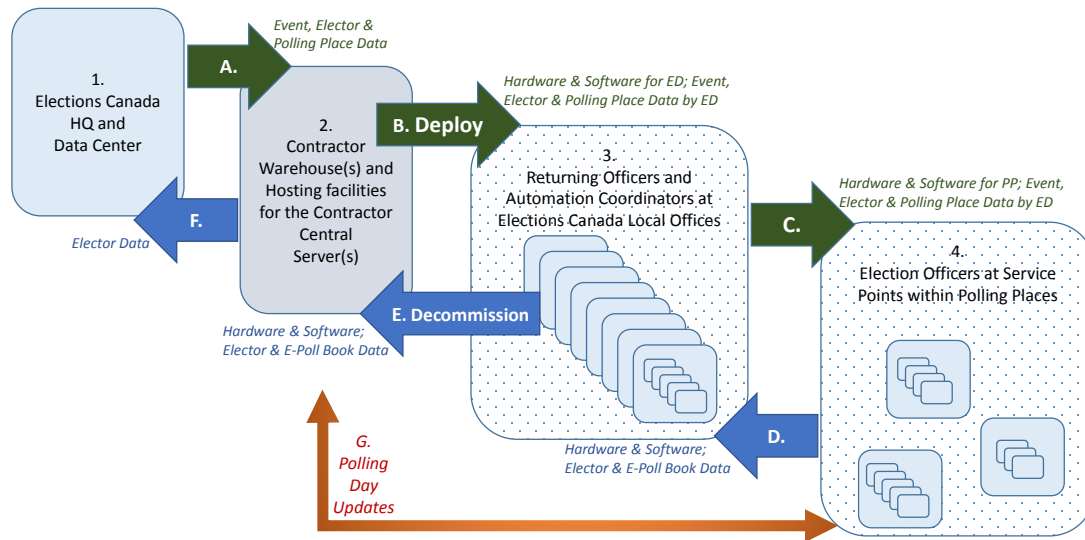
Elections Canada plans to implement the first of these changes, by introducing the new Polling Place processes at advance and ordinary polls and a basic E-Poll Solution in any by-elections called after September 1<sup>st</sup>, 2018. The 43<sup>rd</sup> General Election would include the full E-Poll Solution and changes to the Polling Place and RO Office processes in up to 50% of the Electoral Districts. Further implementations would include more functionality and wider deployment in future Electoral Events.

##### **4.01. The Concept of Operations**

**Figure 1 – Concept of Operations** depicts the basic vision which describes the primary participants and the interactions between them. The participants in the concept of operations are:

1. ECHQ and data centre (authoritative source for Electoral Event, Elector and Polling Place data).
2. Contractor hosting facilities for the Contractor Central Server(s) and Contractor storage facilities for hardware (possibly more than one site: the Contractor Central Server and a Contractor facility for preparing hardware, software and equipment for shipping).
3. Returning Officers and Automation Coordinators (AC) at EC Local Offices.
4. Election Officers at EC Service Points within Polling Places (PP) (the locations across the country where Canadians vote).

The interactions between the participants are indicated in **Figure 1** as arrows labeled A to G, and generally represent manual or automated operations coinciding with Electoral Event preparation, deployment, Election Day and decommissioning.



**Figure 1 – Concept of Operations**

**4.02. Deployment, Election Day and Decommissioning Operations**

Key to what is depicted in the concept of operations is the final business outcome: securely provisioning hardware, software and EC data required to conduct record keeping operations electronically in Polling Places on Polling Days, and returning all equipment and required data after Polling Days.

In **Figure 1**, a jointly developed interface (process A) between EC and a Contractor Central Server provides the means to deliver Electoral Event, Elector, Polling Place, and other relevant data from EC systems to the Contractor's E-Poll Solution. The Contractor must also manage a hardware storage facility for E-Poll Device Kits prior to their being shipped to EC Local Offices. After the initiation of an Electoral Event, the Contractor must ship all necessary E-Poll Solution components to the EC Local Offices where ACs will follow Contractor provided procedures to load EC data from the Contractor Central Server to the E-Poll Devices in preparation for use at Polling Places (process B).

Deployment of E-Poll Solution components to Polling Places from Local Offices (process C) and decommissioning operations which return E-Poll Solution components to Local Offices (process D) are to be conducted by EC. The Contractor's solution must facilitate logistics and simplify

these processes (e.g. a compact E-Poll Device Kit carrying case is a requirement). It is important to note that EC expects that connectivity in Polling Places will range from none to intermittent or non-persistent to persistent, while Local Offices should have persistent connectivity. Cellular connectivity is the most ubiquitous solution that may be relied upon nationally in the future, however public/private local networks (Wi-Fi) may be the only option in some Polling Places for the foreseeable future.

Integrated logistics and management of all aspects of the Contractor Central Server, hosting facilities, Contractor storage facilities, and the interfaces with EC represented at processes A, B, E and F during readiness, deployment, polling and decommissioning operations are all key elements of the concept of operations. The Contractor must effectively plan, organize, secure and manage these facilities and interfaces to deliver smooth and effective logistics management.

As depicted, there must be a bi-directional data transfer process (Process G) between E-Poll Devices and the Contractor Central Server whenever connectivity permits. Given the potential for limited or no connectivity in Polling Places, the E-Poll Solution must be able to fully function in any type of connectivity if or when it exists, and support alternate electronic data transfer processes and mechanisms when there is no connectivity at all.

#### **4.03. Scale and Complexity**

E-Poll Devices have proven beneficial in other jurisdictions. However, there has yet to be an implementation of an E-Poll Solution at the deployment scale required to support a Canadian federal election.

Given the scale and complexity, EC requires an experienced systems integration and logistics management supplier with a full appreciation of the challenges involved in managing and delivering such a program.

While the Contractor may engage with sub-contractors, the Contractor is responsible for providing all products and services in accordance with the functional and technical specifications provided. The Contractor must manage the design, development and implementation phases of the work in coordination with EC, and support logistics and manage related services through the readiness, deployment, event management and decommissioning stages of the Electoral Events during the Term of the Contract. EC executives and operations managers will be engaged and committed throughout the Contract, as described in ANNEX A – APPENDIX H.1 – Governance Framework.

As necessary, the Contractor must consult with EC to guarantee delivery and successful operation of a complete, functional, secure, and high-availability E-Poll Solution for use by ECHQ and by Election Officers at Polling Places across any, or all, 338 Electoral Districts (ED).

Design, development and implementation of the E-Poll Solution are to be with sufficient oversight by EC to assure the Contractor is proceeding on schedule, and that the E-Poll Solution will be compliant with EC requirements as stated in the SOW. The responsibilities of the Contractor and EC are detailed in ANNEX A - APPENDIX I – SERVICE MANAGEMENT. Strategies for successful initial delivery for first use, and iterative deployment and decommissioning of this solution through subsequent Electoral cycles, will be architected to be achieved effectively and efficiently in coordination with diverse stakeholder groups at EC.

## **5. SCOPE OF WORK**

### **5.01. E-Poll Solution Requirement**

The Contractor must provide an E-Poll Solution that includes the following elements as previously described in **Figure 1 – Concept of Operations**.

1. Hardware, software and services supporting delivery of complete E-Poll Device functionality in Polling Places.
2. Hardware, software and services supporting deployment of E-Poll Devices to EC Local Offices.
3. Hardware, software and services supporting a Contractor Central Server that meets EC's requirements, providing data interchange services to the E-Poll Devices, and providing access and analytic tools for accessing data from prior Electoral Events throughout the Term of the Contract, and for the requisite archive period (i.e. ten years after the last Electoral Event in which the E-Poll Solution was deployed).
4. Data integration and interchange services between the Contractor Central Server and EC's data centre.

### **5.02. E-Poll Solution**

The E-Poll Solution will be a Contractor-managed solution. All solution components necessary to operate the E-Poll Solution throughout the Electoral Event and post-Electoral Event activities, and to appropriately secure information, must be provided. EC envisions an architecture in which there is a secure, high volume, high speed, back-end interface between a Contractor Central Server and a purpose-built EC interface to EC data assets, throughout Electoral Event Calendar. This interface is defined in the requirements (ANNEX A - APPENDIX E – STATEMENT OF REQUIREMENTS).

EC reserves the right to stipulate, and has stipulated, requirements unique to government administration that are beyond those of non-public sector business practices including security, privacy, and Official Languages requirements.

### **5.03. Offices of Returning Officers Operations**

The Returning Officers' operational requirements specify the activities required to prepare and deploy Service Point E-Poll Devices from RO and AARO offices before Polling Days, and to recover, assure all data is captured to the Contractor Central Server, and decommission the devices after Polling Days.

Although the requirements have been stated to provide flexibility, the requirements of configuration and deployment of E-Poll Devices are currently envisioned as follows:

1. The Contractor must procure and receive the devices from the hardware manufacturer directly, and configure the devices to include all Contractor supplied software, and meet all EC configurations, security and other requirements.
2. The Contractor must ship devices to one or more designated storage areas in Canada to arrive ready for deployment no later than August 1, 2018 for a By-Election Electoral Event held after that date, and August 1, 2019 for the 43rd General Election.
3. At the call of the Electoral Event, EC will authorise the Contractor to ship the devices in requisite quantities to each of the RO and AARO offices from which they will be deployed.
4. The Contractor must provide, for each RO and AARO office, all networking infrastructure necessary to support the communication of data to and from the Contractor Central Server to configure the devices with requisite data, if this infrastructure is not part of the E-Poll Device. The E-Poll Solution may communicate using the RO/AARO office internet connection.
5. RO staff will load requisite ED and Electoral Event specific data to the E-Poll Devices prior to use, and manage deployment of the devices to the polls by Election Officers (EO).
6. RO staff will capture E-Poll Device credentials for EOs at the times of training, which will subsequently be loaded to all devices for their ED prior to deployment.
7. The Contractor must provide, for each Polling Place, all networking infrastructure necessary to support the communication of data between service points at the Polling Place, and to and from the Contractor Central Server where connectivity permits, if this infrastructure is not part of the E-Poll Device. The E-Poll Solution may communicate using internet connectivity arranged by the RO as part of the Polling Place lease.
8. The E-Poll Solution must ensure that no E-Poll Device will permit decommissioning (data cleansing) until it is placed in a state where it can be decommissioned by the

Contractor Central Server after confirmation that all data has been uploaded to the Contractor Central Server.

9. After Election Day, RO staff will upload all data from E-Poll Devices to the Contractor Central Server before decommissioning them and preparing the devices for return to the Contractor's inventory.
10. The Contractor must arrange the pickup of all E-Poll Devices (and supporting Contractor network infrastructure, if any) from RO and AARO offices.

#### **5.04. Centralized Hosting Services**

The Contractor must provide centralized hosting services for the Contractor Central Server.

The only interface between the E-Poll Solution and EC systems will be between the Contractor Central Server component and the EC web service as defined in ANNEX A - APPENDIX E – STATEMENT OF REQUIREMENTS. With EC written approval, the Contractor may use more than one Contractor Central Server.

The E-Poll Solution architecture will be based on communication between authorized Polling Place E-Poll Devices, the Contractor Central Server, and EC data centre.

Data will be exclusively communicated between these three E-Poll Solution components as specified and verified for production by EC. Any exceptions or change in content, format, or communication details must be pre-approved in writing by EC.

##### **5.04.01 Integration Services**

The scope of work and services described herein includes the set of common services and processes that make up integration service management. This refers to the broad categories of infrastructure, application services, network services, Service Desk services, transition services, and end user services.

A key objective for the Contractor is to meet or exceed Service Level Requirements (SLR). Applicable SLRs are identified in ANNEX A - APPENDIX I – SERVICE MANAGEMENT.

#### **5.05. Structure of the Statement of Work (SOW)**

The body of this Statement of Work provides high level description of the Contractor's obligations. Detailed context and requirements are included as Appendices as follows:

- **ANNEX A - APPENDIX A – GLOSSARY:** defines terminology used in this Statement of Work.

- **ANNEX A - APPENDIX B – ACRONYMS:** defines acronyms and abbreviations used in this Statement of Work.
- **ANNEX A - APPENDIX C – CANADIAN FEDERAL ELECTORAL EVENT E-POLL CONTEXT:** describes Canadian federal elections as prescribed by the Canada Elections Act (CEA). This context is important to properly understand the objectives and outcomes.
  - **ANNEX A – APPENDIX C.1 – Polling Place Business Process Models:** conceptually describes, using Business Process Model Notation (BPMN), Elector facing Polling Place processes supported by the E-Poll Solution.
  - **ANNEX A – APPENDIX C.2 – Polling Place Entity State Diagrams:** conceptually describes, using state model diagrams, the states and state transitions of the List of Electors, ballots, Electors and the E-Poll Device.
  - **ANNEX A – APPENDIX C.3 – Counting Process Conceptual Solution:** conceptually describes how the E-Poll Solution will be used to record the result of the existing hand count of ballots by EOs.
  - **ANNEX A – APPENDIX C.4 – Current Election Paper Forms To Be Replaced By The E-Poll Solution:** shows some of the current Electoral Event forms used at the polls which will be replaced where the E-Poll Solution is deployed, and which may still be used at Polling Places where the E-Poll Solution is not deployed.
- **ANNEX A - APPENDIX D – E-POLL SOLUTION TECHNICAL VISION:** conceptually describes the envisioned E-Poll Solution. Requirements are organized according to the conceptual components of this vision.
- **ANNEX A - APPENDIX E – STATEMENT OF REQUIREMENTS (EXCEL: VSM PPPE SOR.xlsx):** provides tables of non-functional and functional requirements organized by primary E-Poll Solution components:
  - Polling Place: software, hardware, procedures and training material used by Election Officers at Polling Places to serve Electors, administer the polls and support counting.
  - Offices of Returning Officers: software, hardware, procedures and training material used to receive, configure for use, deploy to Election Officers, recapture and decommission E-Poll Solution components used at Polling Places, and to prepare Election Officers to independently operate and support the E-Poll Solution.
  - Contractor Central Server: hosting services, hardware, software, procedures and training material which enable:

- Returning Officers and EC staff to configure, deploy, monitor and report on operation and support of the E-Poll Solution.
- Bi-directional communication of Election data between E-Poll Solution components and the EC data centre.
- Integration Services:
  - Support Contract administration;
  - Support the product lifecycle; and
  - Service during elections.

The Statement of Requirements also includes the following Appendices:

- **ANNEX A – APPENDIX E.1 – EC Address Type Definitions:** provides a description and statement of the data elements which compose each type of address used in Canadian Electoral Events.
- **ANNEX A – APPENDIX E.2 – Specification for Poll Book entries:** provides a statement of the data elements which compose each type of Poll Book entry.
- **ANNEX A – APPENDIX E.3 – Specification for Reports:** provides a statement of the data elements which compose each type of report, user input criteria for filtering and sorting, and supported output forms and media.
- **ANNEX A – APPENDIX E.4 – The Electoral Calendar - Key Dates and E-Poll Solution Activities:** describes the timetable for a Canadian federal Electoral Event, including key legislated dates which the E-Poll Solution must respect during operation for each Electoral Event.
- **ANNEX A – APPENDIX E.5 – Data Integration Calendar:** describes the timetable for a Canadian federal Electoral Event as it applies to information exchange through the EC – Contractor data exchange interface.
- **ANNEX A – APPENDIX E.6 – Data Integration – Data Dictionaries:** describes the entities and data elements which compose the data integration layer between the Contractor Central Server and EC data centre.
- **ANNEX A – APPENDIX E.7 – Data Integration – Web Services:** describes a model approach for a transaction based bi-directional integration layer between the Contractor Central Server and EC data centre.
- **ANNEX A – APPENDIX E.8 – Data Integration – Validation Rules:** describes the rules which govern bi-directional communication of data through the integration layer between the Contractor Central Server and EC data centre.
- **ANNEX A – APPENDIX E.9 – SECURITY REQUIREMENTS:** provides security requirements for the Contractor's organization and all E-Poll Solution components.



- **ANNEX A - APPENDIX F – CONTRACTOR PLAN AND DELIVERABLE SCHEDULE:** the schedule of Contract deliverables identifying the types and frequency of deliverables.
- **ANNEX A - APPENDIX G – ELECTORAL EVENT DEPLOYMENT SCHEDULES:** the schedule of deliverables for each Electoral Event.
- **ANNEX A - APPENDIX H – CONTRACT MANAGEMENT**
  - **ANNEX A – APPENDIX H.1 – Governance Framework:** describes the EC-Contractor integrated governance approach
  - **ANNEX A – APPENDIX H.2 – Contractor Performance Management & Metrics:** describes metrics which will be used to evaluate the Contractor's performance with respect to the Contract.
- **ANNEX A - APPENDIX I – SERVICE MANAGEMENT**
  - **ANNEX A – APPENDIX I.1 – Product Development Lifecycle (PDLC) Services** describes Contractor Service Deliverables and roles and responsibilities of EC and the Contractor in the product development phases of the Contract.
  - **ANNEX A – APPENDIX I.2 –Product Operation Services:** describes Contractor Service Deliverables and roles and responsibilities of EC and the Contractor in the product operation phases of the Contract.
  - **ANNEX A – APPENDIX I.3 –Contractor’s Service Desk:** describes the Contractor Service Desk Deliverable.
  - **ANNEX A – APPENDIX I.4 – Product Performance Management & Metrics:** describes metrics which will be used to evaluate the E-Poll Solution's performance with respect to the Contract.

For a more complete description of these document components, see section 8-REQUIREMENTS.

#### **5.06. Priority of Requirements**

Notwithstanding the Priority of Documents in Section 1.02 of the Articles of Agreement, if at any time requirements in this document are in conflict, the following hierarchy of requirements is to be used to resolve the conflict with requirements appearing first in this list taking precedence over those from any following source:

1. ANNEX A – APPENDIX E.9 – SECURITY REQUIREMENTS
2. ANNEX A - APPENDIX E – STATEMENT OF REQUIREMENTS, all other parts of Appendix E
3. ANNEX A - APPENDIX I – SERVICE MANAGEMENT
4. All other parts of this SOW

## **6. CONSTRAINTS**

### **6.01. Federal Acts and Regulations**

All products and services delivered through the E-Poll Solution must comply with legislations and regulations and facilitate EC's compliance with policies, directives, standards and guidelines as identified below.

Legislation, regulations, policies, directives, standards and guidelines provide further useful information to determine the compliance requirements of the E-Poll Solution, as well as the scope and complexity of the business workflow and functional requirements that must be implemented. While the current location of the latest electronic version of each document is provided, all are subject to change and the E-Poll Solution must facilitate EC's continued compliance with applicable legislative, regulatory and policy requirements, standards and guidelines.

The Contractor and E-Poll Solution must facilitate EC's compliance with its policies, directives and guidelines such as:

[Policy on Privacy Protection](#)

[Policy on Access to Information](#)

[Directive on the Administration of the Access to Information Act](#)

[Policy on Government Security](#)

[Management of Information Technology Security \(MITS\) standard](#)

[ITSG-33](#) (through compliance with the SCP)

The automated services delivered through the E-Poll Solution must facilitate EC's compliance with the policies, directives and guidelines applicable to EC, regardless of whether more specific references appear in Sections 4 and 5 above, including but not limited to:

[Canada Elections Act](#)

[Referendum Act](#)

[The Privacy Act](#)

[Access to Information Act](#)

### [Official Languages Act](#)

All federal legislation, including those not listed above, can be found in their entirety on the Department of Justice website: [www.justice.gc.ca](http://www.justice.gc.ca).

## **6.02. Commitment to Security and Privacy of Personal Information**

Canada has one of the most comprehensive privacy legislative and policy frameworks in the world. The privacy of Canadians is protected by the Canadian Charter of Rights and Freedoms through various provisions. The Criminal Code has various provisions creating criminal offences relating to invasions of privacy, through Part VI of the Code which relates to the interception of private communications.

Many federal statutes contain provisions limiting the use and disclosure of personal information collected by specific federal government institutions, including information pertaining to employees including the [Department of Employment and Social Development Act](#), Part 4 Protection of Personal Information. The Contractor and the Contractor's E-Poll Solution must facilitate EC's compliance with such legislations.

The Canada Elections Act and the Privacy Act place limits on the collection, use and disclosure of personal information by EC. It also gives Canadians the right to access and correct personal information about them that is held by institutions.

The Contractor has an ongoing responsibility for personal and protected information, including, but not limited to, the following:

- Elector personal information on the List of Electors;
- Elector personal information captured as part of changes and additions to the List of Electors, Oaths and declarations; and
- Election Officer personal information used in the management of the E-Poll Solution.

The Contractor must participate in the EC Security Assessment and Authorization (SA&A) program, as described in Section 28.01 of **ANNEX A – APPENDIX E.9 – SECURITY**

**REQUIREMENTS** The Contractor, in accordance with the SCP must:

- be responsible for the safekeeping, protection and privacy of this information;
- ensure that the conversion, imaging and subsequent destruction of any personal information originating from the Contract is conducted in accordance with all applicable legislation and policies;
- participate in a Privacy Impact Assessment with EC; and

- safeguard any information created, destroyed, stored, accessed and modified in the delivery of the E-Poll Solution in accordance with legislated requirements. In doing so, the E-Poll Solution must:
  - ensure that the quality, accuracy, completeness and integrity of the data within the E-Poll Solution is always maintained using appropriate validation measures;
  - ensure that the consistency of the data is both reconcilable and auditable;
  - support business continuity and disaster recovery planning;
  - ensure the continued availability and integrity of Polling Place records throughout polling operations and post-Election processes such as judicial reviews; and
  - protect sensitive information and safeguard against theft, including identity theft, and against unauthorized access.

### **6.03. Service Delivery in both Official Languages**

As required by the Official Languages Act, EC has an obligation to provide service delivery in Canada's two Official Languages: English and French. When designing the E-Poll Solution, the Contractor must:

- Provide user materials in both Official Languages;
- Provide all E-Poll Solution text information in the user's Official Language of choice. This includes all user-facing information and tools such as background text, web applications, error and Warning Messages, system-generated messaging, and any print and online documentation; and
- Provide helpdesk support in both Official Languages, based on the caller's or user's language of choice.

## **7. EXPECTED OUTCOMES**

### **7.01. Business Outcomes**

The E-Poll Solution will improve administration of the polling process by supporting EC Electoral Event functions, primarily:

- 1) **Management of the List of Electors and Poll Book**, this includes:
  - (a) searching the List of Electors to find the record for each Elector;
  - (b) making corrections to the List of Electors;
  - (c) making additions to the List of Electors (at-poll Registration);

- (d) recording the issue of a ballot to an Elector (Striking an Elector) and recording the return of the ballot (Marking an Elector as Voted) by an Elector;
  - (e) redirecting Electors who are at the wrong Polling Place; and
  - (f) recording the administration of Oaths and other poll activities in the Poll Book.
- 2) **Accounting of Ballots:** this includes tracking the number and status of ballots issued to, and used by a Service Point.
  - 3) **Management of the Service Point:** this includes recording anything unusual and considered as an exceptional event that happen at the Service Point and Polling Place which pertain to individual Electors or affect polling operations, some of which must be protected for legal reasons through a chain of custody.
  - 4) **Counting and Reporting:** this includes documenting results as ballots are hand-counted and reporting summary results from the count which will be transcribed to the official paper records.
  - 5) **Supervision of the Polling Place:** this includes reporting of status and issue management to Polling Place Supervising EOs, the ROs and to EC.
  - 6) **Provision of Candidate Services:** this includes provision of access to witness polling operations, and provision of voted Elector data both at the poll and optionally, through a Candidate portal web-service.
  - 7) **Provision of any records at the request of EC:** this includes provision of complete, accurate, and auditable records through a reliable chain of custody.
  - 8) **Business Intelligence:** this includes analytics of Polling Place operations in support of administration and future planning.

#### **7.01.01 Stakeholder Outcomes**

There are four principal stakeholders in polling operations: the Canadian public, Election Officers, Candidates and ROs. Successful implementation of the PPPE project is intended to achieve the following outcomes for these stakeholders.

#### **7.01.02 Canadians**

Canadians expect convenient, accessible service. The E-Poll Solution will reduce end-to-end service times for Electors, especially for those who arrive "ready to vote" – with proper ID documents and their Voter Information Card (VIC) at the correct Polling Place.

#### **7.01.03 Election Officers (EO)**

Election Officers are the service providers of the Electoral Event on Polling Days, facing an array of legislated responsibilities which can be challenging to consistently meet over a long day, in a

context where they only have these duties every four years. The E-Poll Solution will assist EOs in properly executing their duties and provide improvements to working conditions, such as breaks.

#### **7.01.04 Candidates**

Candidates have a statutory right to receive information regarding which Electors have voted to support get-out-the-vote efforts, and visibility into the polling process to assure the Electoral Event is run in compliance with legislation. The E-Poll Solution will automate capture and delivery of voted Elector information, and maintain visibility into Polling Place processes.

#### **7.01.05 Returning Officers (RO)**

Returning Officers face a demanding challenge in hiring, training and managing a large, short-term workforce to conduct polling operations, to capture the results of the polling operations, and to manage the logistics of these operations from a temporary office. The E-Poll Solution may reduce the number of Election Officers required at the polls, automate information capture (greatly reducing the post-polling effort at RO offices) and simplify training.

## **8. REQUIREMENTS**

### **8.01. Baseline E-Poll Solution**

The Contractor must deliver, enable, and maintain a core E-Poll Solution including relevant and current information technology hardware and software components and related business processes to deliver the requirements detailed in the SOW. The baseline information technology E-Poll Solution must be easily configurable so that the modification, adjustment, or addition of Polling Place process work flows can be performed without significant application code changes required to the E-Poll Solution.

#### **8.01.01 Continuous Technology Improvement to Baseline Solution**

The Contractor must maintain and update hardware, software, and other related IT solution components of their E-Poll Solution in support of the requirements under this Contract. Continuous improvement includes keeping these E-Poll Solution components current (i.e. updated software releases and evergreen hardware cycle upgrades), compatible with changing EC standards and relevant to common industry practices for the same types of service delivery. Continuous improvement requirements will require the Contractor to employ software, hardware, and other related technology E-Poll Solution components that are versatile and can

functionally interact and integrate with IT components used by EC and that are common within managed service arrangements.

### **8.01.02 Change Management Addition of New Technology Components**

The Contractor must deploy an E-Poll Solution that is flexible, scalable and adaptable which will result in minimal enhancement costs to EC and minimal time to adjust and deploy.

### **8.02. Terminology**

All terminology used in the statement of work is defined in ANNEX A - APPENDIX A – GLOSSARY. Acronyms and abbreviations are defined in ANNEX A - APPENDIX B – ACRONYMS.

### **8.03. Canadian Federal Electoral Event E-Poll Solution Context**

The E-Poll Solution will be used by EC in the unique Canadian federal context of holding Electoral Events in different time zones, languages, and geographically diverse regions. The functional requirements are best understood in the context of the Polling Place processes that the E-Poll Solution is supporting. A description of this context is provided in ANNEX A - APPENDIX C – CANADIAN FEDERAL ELECTORAL EVENT E-POLL CONTEXT.

#### **8.03.01 Business Process Diagrams**

The narrative is supplemented by business process model notation (BPMN) diagrams as ANNEX A – APPENDIX C.1 – Polling Place Business Process Models

#### **8.03.02 State Diagrams**

Some requirements occur in the context of the status of a specific Polling Place entity, for example the status of an Elector's record on the List of Electors, the status of a ballot, or the status of the E-Poll Device. To help clarify the various states and transitions between states of various entities in the Polling Place, state diagrams for some key entities are provided at ANNEX A – APPENDIX C.2 – Polling Place Entity State Diagrams.

#### **8.03.03 E-Poll Solution Support for Records of the Count of Results**

Legislation requires that the results be reported by Candidate, by Polling Division. Pending legislative changes, it may become necessary for Election Officers to record the Polling Division for each Elector on the ballot at the time the ballot is provided to an Elector. If so, after the close of polls, Election Officers may use the E-Poll Solution to support recording of a more complicated manual counting process than the status quo. This potential change and the

envisioned E-Poll Solution are further described in ANNEX A - APPENDIX C – CANADIAN FEDERAL ELECTORAL EVENT E-POLL CONTEXT.

#### **8.04. E-Poll Solution Technical Vision**

EC has envisioned the conceptual E-Poll Solution, and structured requirements around that vision. The technical vision is further elaborated in ANNEX A - APPENDIX D – E-POLL SOLUTION TECHNICAL VISION.

#### **8.05. E-Poll Solution Statement of Requirements**

Functional and non-functional requirements are described in ANNEX A - APPENDIX E – STATEMENT OF REQUIREMENTS. These requirements specify the scope of work including specific activities to be performed by the Contractor, as well as overall capabilities the E-Poll Solution must include while adhering to applicable legislative and policy mandated requirements specific to each sub-activity.

##### **8.05.01 EC Address Types**

Many requirements include collection or use of addresses. EC uses a combination of mailing and municipal address types to identify the Polling Division in which an Elector resides. The forms of some of these addresses are unique to certain parts of Canada and must be supported by the E-Poll Solution. Wherever a requirement refers to an address, the E-Poll Solution must support any of the types described in ANNEX A – APPENDIX E.1 –EC Address Type Definitions. The context in which addresses are used is described in the body of ANNEX A - APPENDIX E – STATEMENT OF REQUIREMENTS.

##### **8.05.02 Poll Book Entries**

Legislation requires an array of activities which occur at Polling Places to be recorded with specific information; the form is prescribed by the Chief Electoral Officer. The E-Poll Solution will be the prescribed form for these entries. The identification of entry types and information content for each are identified in ANNEX A – APPENDIX E.2 – Specification for Poll Book entries. The context in which they are made is described in the body of ANNEX A - APPENDIX E – STATEMENT OF REQUIREMENTS.

##### **8.05.03 Polling Place Reports**

Legislation requires certain information to be made available to various stakeholders, including Candidate’s Representatives and Returning Officers, during and after the operation of polls. ANNEX A – APPENDIX E.3 –Specification for Reports identifies the types, information content,



output media and other necessary information for required reporting functions at the Polling Place that must be enabled by the E-Poll Solution. The context in which some reports are used is described in the body of ANNEX A - APPENDIX E – STATEMENT OF REQUIREMENTS.

#### **8.05.04 Election Calendar Key Dates**

Legislation requires that certain activities be performed at prescribed times relative to Election Day, for example, the production of the List of Electors with revisions up to a prescribed point in time for use at Advance Polls. These key timelines must be respected by the Contractor in all activities related to the E-Poll Solution. In addition, there are key administrative dates which require ROs and Election Officers to perform tasks at certain times. The set of relevant dates and activities for the E-Poll Solution is described at ANNEX A – APPENDIX E.4 –The Electoral Calendar - Key Dates and ANNEX A – APPENDIX E.5 – Data Integration Calendar.

#### **8.05.05 EC – Contractor Application Program Interface**

The E-Poll Solution interface must meet the requirements and specifications described in:

- ANNEX A – APPENDIX E.6 – Data Integration – Data Dictionaries
- ANNEX A – APPENDIX E.7 – Data Integration – Web Services
- ANNEX A – APPENDIX E.8 – Data Integration – Validation Rules

#### **8.05.06 Security Control Profile**

The E-Poll Solution must meet the security requirements described in the SCP in **ANNEX A – APPENDIX E.9 – SECURITY REQUIREMENTS**. All other requirements must be met in a manner that is compliant with the requirements in the SCP in **ANNEX A – APPENDIX E.9 – SECURITY REQUIREMENTS**.

#### **8.06. Contractor Plan and Schedule of Deliverables**

The Contractor must deliver a plan which encompasses both the product development lifecycle and operational deployments of the E-Poll solution. The plan shall include key milestones, planned releases and the delivery dates of all E-Poll Solution components, most notably for User Acceptance Testing which leads to event readiness, and for operation of Electoral Events. The schedule of deliverables for Electoral Events of various types and deployment scales are described in the next section. The requirements for the Contractor Plan and schedules of deliverables which lead to preparedness for operating an Electoral Event, and for managing the Contract itself, are described in ANNEX A - APPENDIX F – CONTRACTOR PLAN AND DELIVERABLE SCHEDULE.

## **8.07. Electoral Event Schedule of Deliverables**

The Contractor must address three types of Electoral Event schedules:

- 1. The event schedule for a General Election or referendum on a legislated date.** The Contractor and all E-Poll Solution components (as described in ANNEX A - APPENDIX E – STATEMENT OF REQUIREMENTS) must be provisioned and available for operation according to the scheduled dates.
- 2. The event schedule for a General Election on short notice (which occurs when a minority government is elected to Parliament).** The Contractor and all E-Poll Solution components, in sufficient quantity, must be continuously available for operation of a General Election with 60 calendar days' notice to prepare the E-Poll Solution kits. After 60 days, and with the E-Poll Solution kits Event Ready, the Contractor must, within 10 calendar days, be able to ship all required Event Ready E-Poll Solution kits to EC Local Offices.
- 3. The event schedule for a By-Election (which occurs for a small number of Electoral Districts on an ad-hoc basis between General Elections).** The Contractor and all E-Poll Solution components, in sufficient quantity to operate Electoral Events in 10 EDs concurrently, must be continuously available for operation of a By-Election with 10 calendar days' notice to ship to EC Local Offices (i.e. a sufficient quantity of E-Poll Device Kits must be retained in an Event Ready state at all times).

The deployment schedules for each scenario are described in ANNEX A - APPENDIX G – ELECTORAL EVENT DEPLOYMENT SCHEDULE.

## **8.08. Contract Management**

The Contractor must provide services to manage the Contract as described in ANNEX A - APPENDIX H – CONTRACT MANAGEMENT.

### **8.08.01 Governance Framework**

Governance for the E-Poll Solution is described in ANNEX A – APPENDIX H.1 –Governance Framework.

### **8.08.02 Contractor Performance**

The performance of both the Contractor and the products and services provided by the Contractor will be measured. Performance of the Contractor in fulfillment of the Contractor's

obligations under this Contract is described in ANNEX A – APPENDIX H.2 –Contractor Performance Management & Metrics.

### **8.09. Service Management**

The Contractor must provide services as part of the deliverables under this Contract as described in ANNEX A - APPENDIX I – SERVICE MANAGEMENT.

#### **8.09.01 Product Development Lifecycle (PDLC)**

The Contractor must provide a plan to define and deliver the E-Poll Solution, constituting the product development lifecycle as described in ANNEX A – APPENDIX I.1 – Product Development Lifecycle (PDLC) Services.

#### **8.09.02 Product Operational Support**

Deliverable services which must be provided by the Contractor to implement, deploy, operate, maintain and decommission the E-Poll Solution constitute the operational services and are described in ANNEX A – APPENDIX I.2 – Product Operation Services. A key operational support service will be the Contractor’s Service Desk as described in ANNEX A – APPENDIX I.3 – Contractor’s Service Desk.

#### **8.09.03 Product Performance**

The performance of both the Contractor and the products and services provided by the Contractor will be measured.

Measures for performance of the goods and services which comprise the E-Poll Solution delivered in fulfillment of the Contractor's obligations under this Contract are described in ANNEX A – APPENDIX I.4 – Product Performance Management & Metrics.

## ANNEX A - APPENDIX A – GLOSSARY

### 9. GLOSSARY

Term	Meaning
Additional Assistant Returning Officer (AARO)	The AARO is responsible for an additional office established by the Returning Officer to offer similar services to the Office of the Returning Officer in some EDs. See: Office of the Returning Officer
Advance Polling Place	A location where Advance Polls may be held.
Advance Poll (ADV)	Advance Polls are polls held before Election Day. It allows Electors who are unable, or do not wish, to vote on Election Day to vote on one of those days. Advance Polls are open between 12:00 p.m. and 8:00 p.m. on Friday, Saturday, Sunday and Monday the 10th, 9 <sup>th</sup> , 8th and 7th days before Election Day. See also: Election Day.
Attestation of Residence	A process by which an Elector whose identification documents do not show his address can have another Elector attest to his residence so he may vote. Two Oaths are administered: one for the Elector whose residence is being attested to, and a second for the Elector who attests to the first's residence (known as the "attestor"). An Elector may only attest to the residence of one other Elector and must reside in the same Polling Division as the Elector for whom they are attesting. The Elector whose address has been attested to cannot attest to another Elector's address.
Automation Coordinator (AC)	A person or persons appointed by the RO who oversees the technology in the Office of the Returning Officer. An AC also manages the preparation of the E-Poll Devices for use at the Polling Places, and support of them.
Barrier Message	An E-Poll Solution function that prevents the EO from performing the function they have attempted and provides the EO with a message explaining what they must do before the function they are requesting can be exercised.
Blank Ballot	Ballots provided by the RO to the Service Point EOs which have not been issued to an Elector, spoiled, or lost. (Note that when an Elector casts a ballot without making a mark – leaving the ballot "blank", this is a Rejected Ballot).

Term	Meaning
Blank PD Ballot	At the count, a ballot that has been cast but not identified to a PD by the EO.
By-Election	An Election held in a specific Electoral District (ED) to fill a vacancy in the House of Commons at any time other than during a General Election. Several By-Elections may be held on the same day. By-Elections can also be overlapping, such that one or more Electoral Districts may have an Election Day set and then a second set of Electoral Districts can have a By-Election called that is on a different calendar (with a later Election Day).
Canada Elections Act (CEA)	The law that governs the conduct of federal elections in Canada.
Candidate	A person who seeks Election to public office and whose nomination has been confirmed by the Returning Officer.
Candidate's List of Electors	The list of names and addresses of all registered Electors that is provided to Candidates. Candidate's lists do not include Elector's gender or year of birth.
Candidate Representative	A person authorized by the Candidate to represent the Candidate in designated functions such as observing the proceedings at the polls.
Cast Ballot	A ballot that was deposited into a ballot box by an Elector.
Central Poll Supervisor (CPS)	An Election Officer who prepares and manages a central Polling Place (i.e. a Polling Place that contains four or more polling stations). In the Statement of Work, the CPS is also referred to as "Supervising Election Officer".
Chief Electoral Officer	The independent officer of Parliament responsible for the management of Electoral Events.
Communications Security Establishment (CSE)	Formerly called the Communications Security Establishment Canada (CSEC), this is the Canadian government's national cryptologic agency.

Term	Meaning
Confirmation Message	A non-critical (i.e. routine) E-Poll Solution function that provides the EO with a message that requires the EO to explicitly confirm their intention to continue with the operation they have initiated (e.g. Yes/Next/Continue) or cancel it (e.g. "No/Back/Cancel"). Whatever terminology and mechanism is used by the Contractor must be consistent throughout the E-Poll Solution, with confirmation always being performed in the same way.
Contractor Central Server	A deliverable component of the E-Poll Solution which provides the interface between E-Poll Devices and the EC data centre. The Contractor Central Server provides access to centralized reports, monitoring and administration of the E-Poll Solution. The Contractor Central Server may be implemented as one or more servers.
Contractor Service Desk	This Service Desk is a communications centre that provides a single point of contact between the contractor and the users. The purpose of the Service Desk is to ensure that users receive appropriate support in a timely manner.
Correction Certificate (EC 50051)	The paper document currently used at the polls to record corrections made to the List of Electors, or to obtain a written Oath from an Elector who is recorded with a voted status on the List of Electors, and who claims that they have been Struck (see Striking an Elector) in error.
Counted Ballot	A ballot cast by an Elector which is correctly marked to a Candidate and counted after the polls are closed.
EC Complaint	An issue brought by EC before the Operations Committee or Management Committee which is escalated to the Executive Committee because it cannot be resolved, per ANNEX A – APPENDIX H.2 –Contractor Performance Management & Metrics.
Election	The Election of a member to serve in the House of Commons.
Election Day	The final day of polling, and the day most Electors vote. Day 0 on the Electoral Event Calendar.

Term	Meaning
Election Officer (EO)	A poll worker hired by a Returning Officer, who has sworn an Oath to carry out duties and responsibilities in accordance with the CEA, under the direction of the RO. Election Officers deliver Polling Place Electoral Event services and are the end-users of the E-Poll Device.
Election Period	The period beginning with the issue of the Writ and ending on Election Day or on the day that the Writ is withdrawn or deemed to be withdrawn.
Elector	A Canadian citizen at least 18 years old on Polling Day.
Elector Sequence Number	A number assigned to every elector on the Preliminary List of Electors.
Electoral District (ED)	A geographical area represented by a member of the House of Commons, also called a riding or constituency. Electoral Districts are non-overlapping areas on a map that fall completely within a province or territory. Every residential address in Canada corresponds to exactly one Electoral District (during the 42nd GE there were 338 Electoral Districts corresponding to the 338 members of the 42nd Parliament). An ED is a designated geographical area recognized by a name (e.g. Miramichi–Grand Lake) and a numerical code (e.g.: 13006).
Electoral Event	A Canadian federal General Election, By-Election or referendum.
Electoral Event Calendar	A tool used by EC to manage coordination and completion of activities during Electoral Events, many of which have legislated timeframes and deadlines. The calendar spans the time between the issue of Writs of Election and the closure of RO offices and other post-election activities. The issue of the writ is at least 36 Calendar days (Day 36) before Election Day (Day 0), with days after Election Day referred to as “minus”. Day -1 is the day following Election Day.
Electronic Signature	Symbols or other data in digital form attached to an electronic document as verification of a person’s intent to sign the document.
Essential Requirement	An EC requirement which must be met by the Contractor’s E-Poll Solution in accordance with the schedule, without which the E-Poll Solution will not be Event Ready (i.e. will not be usable by EC in Electoral Events occurring after the scheduled implementation date because the solution is non-compliant with the Essential Requirement at the time when it is needed).

Term	Meaning
Event Ready	A version of the E-Poll Solution (may also be used to describe a component) which is fully compliant with all Essential Requirements identified under this SOW which are applicable at the time of testing (as demonstrated by a UAT for which EC has provided written notice of its successful completion), and which may therefore be used by EC in support of an Electoral Event.
E-Poll Device	A deliverable component of the E-Poll Solution (including its accessories, if any) used by Election Officers at Polling Places to serve Electors and Candidates, record and preserve records of polling operation including records of the count, and support administration of the Service Point and Polling Place.
E-Poll Device Kit	A deliverable component of the E-Poll Solution comprising an E-Poll Device, all E-Poll Solution components required to support the E-Poll Device at the Polling Place (e.g. keyboard, hand held scanners, external storage devices, signature capture devices), and a carrying case for transporting the E-Poll Device and supporting E-Poll Solution Components to and from Polling Places.
E-Poll PP Kit	A deliverable component of the E-Poll Solution comprising all network connectivity, server and backup components as applicable required to support all E-Poll Devices at a Polling Place (e.g. LAN and WAN components), and a carrying case for transporting the Kit to and from Polling Places.
E-Poll RO Kit	A deliverable component of the E-Poll Solution comprising all network connectivity and server components as applicable to support RO/AARO office deployment and decommissioning activities, and shipping materials for transporting the Kit to and from the RO/AARO Offices.
E-Poll Solution	Refers to all component parts of the Contractor's solution, including hardware, software and services.
Final List of Electors (FLE)	The list of Electors all changes performed on Polling Day. This list is produced after the Electoral Event and does not show who has voted.



Term	Meaning
Full Service Point	A Polling Place Service Point where Electors are directed to vote, who do not have a VIC, or the required ID, or who require special administration, or Registration processes.
General Election	An Election held simultaneously in every Electoral District (ED) in Canada.
Happy Path	A term used in process design to describe the process path without exceptions. For the E-Poll Solution, the happy path represents the path followed by approximately 80% of Electors who arrive to vote with acceptable identification documents, their Voter Information Card and at the correct Polling Place.
Information Message	An E-Poll Solution function that provides the EO with a message, usually requiring acknowledgement from the EO, indicating that an operation has been successfully completed.
Interior Gateway Protocol (IGP)	A type of protocol used for exchanging routing information between gateways (commonly routers) within an autonomous system (e.g. a system of corporate local area networks). This routing information can then be used to route network-layer protocols like IP.
Issued Ballot	A ballot that has been given to an Elector that has been admitted to vote.
List of Electors	The list showing the surname, given names, civic address and mailing address of every Elector in a Polling Division, as well as certain information concerning their voted and revision statuses, and the identifier that is assigned to the Elector by the Chief Electoral Officer. There are several versions of the List of Electors produced in the course of an Electoral Event. See Preliminary List of Electors, Revised List of Electors, Official List of Electors and Final List of Electors. The E-Poll Devices will contain the Lists of Electors for all Polling Divisions in an Electoral District.
Local Office	<p>An office established in each Electoral District at the start of each Electoral Event. It is the place from which the Returning Officer and his or her staff serve the public during an Electoral Event. Also referred to as the Office of the Returning Officer (ORO).</p> <p>This term also includes offices for Additional Assistant Returning Officers established at the direction of the Returning Officer.</p>

Term	Meaning
Lost Ballot	After the polls are closed and upon balancing cast and Unused Ballots, a ballot for which EOs cannot account.
Marked Ballot	A ballot used by an Elector to indicate his choice of Candidate that still has the counterfoil attached, before the Elector casts it.
Marking an Elector as Voted	When an Elector has cast their ballot, the Election Officer (EO) indicates on the List of Electors that the Elector has returned their ballot. Note that in practice and in effect, the voted status of an Elector changes to “voted” when an Elector is issued a ballot (when they are struck), not when the ballot is returned (Marked as Voted). See also: Striking an Elector
Mobile Poll	A Mobile Poll is an Ordinary Poll where the ballot box, EOs and supporting materials are moved, on Election Day, from one location to another to provide accessible service to groups of Electors who may have difficulty accessing an Ordinary Polling Place, such as residents of long-term-care facilities.
Multiprotocol Label Switching (MPLS)	A type of data-carrying technique for high-performance telecommunications networks that directs data from one network node to the next based on short path labels rather than long network addresses, avoiding complex lookups in a routing table.
National Register Of Electors (NROE)	A database of Canadian citizens who have the right to vote. It is used to produce preliminary lists of Electors for Electoral Events. Canadians may choose whether to have their names listed in the NROE. It is updated with information from federal, provincial and territorial administrative databases and voters’ lists between Electoral Events. During Electoral Events, the Returning Officers in each Electoral District manage the Lists of Electors, updating them as requested by Electors. After the Electoral Event is complete, the NROE is updated using information from the Final List of Electors (FLE).
Oath	A formal statement made by a person as to the truth of something. It includes a solemn affirmation and a statutory declaration.
Oath of Residence Certificate (EC 50055)	The paper document currently used to record an Attestation of Residence (see: Attestation of Residence) used to prove the residence of an Elector.

Term	Meaning
Office of the Returning Officer (ORO)	An office established in each Electoral District at the start of each Electoral Event. It is the place from which the Returning Officer and his or her staff serve the public during an Electoral Event. Also referred to as a Local Office.
Official List of Electors (OLE)	The List of Electors used at Ordinary Polls which includes all revisions approved by the Returning Officer up to the time it is printed. The OLE records Electors who have applied for a special ballot, and those who have voted at Advance Polls ("Struck Electors").
Open Shortest Path First (OSPF)	A routing protocol for Internet Protocol (IP) networks. It uses a link state routing (LSR) algorithm and falls into the group of interior routing protocols, operating within a single autonomous system (AS).
Ordinary Poll (ORD)	Ordinary Polls are Polling Places established for Polling Divisions on Election Day.
Poll Book (EC 50060)	The Poll Book is the primary record of the proceedings throughout a Polling Day and includes records of Electors who require an Oath, Electors not on the list voting by Registration or Transfer Certificate, notable events at the Service Point or Polling Place and objections to ballots.
Poll Key	A list of address ranges associated to the corresponding PD for an ED. It is used to assign the correct PD to an Elector's address in an ED.
Polling Day(s)	A day on which the polls are open. See also: Advance Poll, Ordinary Poll and Election Day.
Polling Division (PD)	A discrete geographic portion of an Electoral District for which a List of Electors is prepared. Each Electoral District is subdivided by population into administrative areas to create a manageable number of Electors for Polling Places (typically 300-500 Electors per Polling Division). Polling Divisions are non-overlapping areas on a map that fall completely within an Electoral District. Every residential address in Canada corresponds to exactly one Polling Division (for the 42nd GE there were more than 65,500 Polling Divisions).

Term	Meaning
Polling Place (PP)	A Polling Place is a location where Electors go to vote. Each PP has an associated address, and is identified on a voter's VIC as the place to go for services on Polling Days. Each Polling Division is assigned to an Advance Polling Place and an Ordinary Polling Place.
Polling Place Process Enhancement (PPPE)	The EC project which will enhance in-person voting through changing of the voting process and introduction of computers at the polls, thereby enabling the process of administering voters with technology. PPPE does not entail electronic or Internet-based voting or tabulators.
Polling Station	If legislative changes are enacted, the term Polling Station will become synonymous with Polling Place. However, if the legislation is not changed, the term Polling Station will be synonymous with the term Service Point used in this SOW.
Proposed Change	A change to the E-Poll Solution either as a result of a Request for Change from EC, or as proposed by the Contractor, which is not part of a planned release.
Preliminary List of Electors (PLE)	The List of Electors generated from the National Register of Electors for the beginning of the Electoral Event. It is the "preliminary list" of Electors for each Polling Division for each Electoral District.
Referendum	An electoral event in which electors are asked to answer "Yes" or "No" to a written question. The law that sets out the rules for holding federal referendums in Canada is the Referendum Act. Under this Act, federal referendums may be held only on constitutional issues. The E-Poll Solution must perform for referendums in the same manner as for General Elections.
Registration	A process by which an Elector is added to the List of Electors.
Registration Certificate (EC 50050)	The paper document currently used to record Registration of an Elector to vote at a Polling Place (i.e. the addition of an Elector to the List of Electors).
Rejected Ballot	A ballot cast by an Elector that cannot be counted because it does not clearly identify a Candidate or is marked in a way that the elector could be identified. It is set aside as rejected at the count.

Term	Meaning
Representational State Transfer or Restful Web Services (REST)	One way of providing interoperability between computer systems on the Internet. In a Restful Web Service, requests made to a resource's URI will elicit a response that may be in XML, HTML, JSON or some other defined format. <b>RESTful API</b> is an application program interface (API) that uses HTTP requests to GET, PUT, POST and DELETE data.
Returning Officer (RO)	The Chief Electoral Officer appoints a Returning Officer for each Electoral District to be responsible, under the general direction of the Chief Electoral Officer, for the preparation and conduct of an Election in his or her Electoral District.
Revised List of Electors (RLE)	The List of Electors used at Advance Polls which shows all revisions approved by the Returning Officer up to the time it is printed. The RLE records Electors who have applied for a special ballot ("Struck Electors").
Service Point	A location within the Polling Place where an Elector may vote.
Spoiled Ballot	A ballot which has not been deposited in the ballot box, but has been found by an Election Officer (EO) to be soiled, improperly printed, or mishandled by an Elector so that it cannot be used to vote, and which is set aside as "spoiled" during the operation of the poll.
Statement of the Electors Who Voted	The record of the Electoral District, Polling Division, List of Electors Elector Sequence Number, and time interval when each Elector voted, which is provided to Candidate Representatives on Polling Days as required by the CEA to enable Candidates to "get-out-the-vote".
Statement of The Vote (EC 50100)	The record of the count of ballots that is authorized by Election Officers.
Strike(s)	A strike is a record against an elector's name on a List of Electors to indicate the elector has received a ballot. Visually, this record is displayed as a line through the elector's name and address on the List of Electors.
Striking an Elector	The activity by which an Election Officer strikes an Elector's name on the List of Electors to indicate that a ballot has been issued.
Struck Elector	Once an Election Officer strikes an Elector's name on the List of Electors, that elector is referred to as a "Struck Elector".

Term	Meaning
Supervising Election Officer	An Election Officer tasked to supervise activities at a Polling Place. Typically, this will be a “Central Poll Supervisor” when one or more is appointed to a Polling Place.
System Development Lifecycle (SDLC)	A methodology followed by a development team within an organization. It consists of a detailed plan describing how to develop, maintain and replace specific systems.
Transfer Certificate (EC 10190)	A document issued by the Returning Officer for extenuating circumstances that enables an Elector to vote at a different Polling Place than the one to which the elector has been assigned.
Unmarked Ballot	A ballot that has been handed to the Elector to mark behind the voting screen.
Unused Ballot	At the close of polls, remaining Blank Ballots are referred to as Unused Ballots.
User Interface (UI)	The interface of a computer application which the user uses to interact with the application.
Voter Information Card (VIC)	A notice that Returning Officers send during an Election Period to every Elector whose name appears on the Preliminary Lists of Electors. The VIC provides information on when and where to vote. It is referred to as the “Notice of confirmation of Registration” in the CEA.
Voting Services Modernization (VSM)	An EC initiative to identify and implement enhancements to voter Registration and voting services to increase accessibility, convenience, and effectiveness while maintaining or improving integrity.
Warning Message	<p>A critical E-Poll Solution function that provides the EO with a message that requires the EO to explicitly confirm their intention to continue with the operation they have initiated (e.g. Yes/Next/Continue) or cancel it (e.g. "No/Back/Cancel").</p> <p>(Note: Whatever terminology and mechanism is used by the Contractor must be consistent throughout the E-Poll Solution, with confirmation always being performed in the same way. Every instance of a Warning Message where the EO continues must be logged in the E-Poll Solution audit logs)</p>

## **9.01. Additional Terminology used in the Statement of Work**

### **9.01.01 E-Poll Solution state**

The following terminology is used in E-Poll Solution requirements to describe the business logic performed based on various states of the Elector and EC's records about the Elector. Some of these states are permanent and recorded, others are defined by the Elector service process flow. This section provides a summary of the states. State diagrams which further clarify the meaning are provided in ANNEX A – APPENDIX C.2 – Polling Place Entity State Diagrams.

### **9.01.02 Elector Record Status**

The List of Electors for the Polling Place is revised during the Election Period. The correct record for each registered Elector is the "Active" record. However, the List of Electors has additional data which can be used to improve service for new Electors and for Electors whose records have been changed in error. For this reason, Elector records will be provided for the E-Poll Device in one of two states:

- a. "Active" records constitute the List of Electors. Although there should only be one active record for each Elector, duplicate active records for a person are a possibility.
- b. "Inactive" records include both records for potential new Electors, and "old records" for Electors for whom a change has been made. There can be more than one inactive record for an Elector.

When an Elector search on the E-Poll Device returns an "Active" record, the Elector may vote without having to Register. If an "Inactive" record is found which matches the ID presented by the Elector, the Elector will be required to Register, but the Registration process is accelerated by pre-populating the Registration process with the information from the "Inactive" record.

### **9.01.03 Elector Polling Place status**

The Elector may only vote at the Polling Place for the PD associated with their residential address. (Depending on the configuration of the E-Poll Solution, Electors may be further constrained so that they may only vote at the Service Point for a Polling Station associated with their Polling Division). Their residential address is the address that is shown on the ID documents that they present as proof of their residential address when they vote. As noted above, there may be more than one record for the Elector on the E-Poll Device, however only the record that matches their ID may be used to vote.

- a. "Correct": The PD for the Elector's residential address matches the list of PDs for the Polling Place.
- b. "Incorrect PD": The PD for the Elector's residential address does not match the list of PDs for the Polling Place, but the address is within the ED.
- c. "Incorrect ED": The ED for the Elector's residential address does not match the ED for the Polling Place.
- d. "Incorrect PS"<sup>1</sup>: If configured for use, this will indicate that the Elector's Polling Station does not match the Polling Station(s) for the E-Poll Device.

If the Polling Place status for an Elector is not "Correct", the Elector may not vote, and must be directed to their correct Polling Place to vote or be registered to an address that belongs to the Polling Place. The Polling Place status is not stored on the E-Poll Device. It is context sensitive and is therefore determined by the E-Poll Device at the Polling Place where the Elector is present.

#### **9.01.04 Elector Voted status**

The Elector voted status is recorded in the EC data and altered by the voting process. This status describes whether an Elector has already voted in the current Election. Valid states are:

- a. "Not Voted": There is no E-Poll Solution record that the Elector has voted.
- b. "Voted SVR": There is an E-Poll Solution record that the Elector has requested a ballot under SVR.
- c. "Voted Adv": There is an E-Poll Solution record that the Elector has voted at an Advance Poll.
- d. "Voted": There is an E-Poll Solution record that the Elector has already voted (at a Polling Place).

An Elector may only vote if their status is "Not Voted". However, the record may be incorrect. An Elector whose record is any of the voted states may swear an Oath that they have not voted. If so, another record with their information is duplicated from the voted record and added to

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<sup>1</sup> The status "Incorrect PS" above assumes that a recommended legislative change is not approved. If or when this change is approved, this status will no longer be applicable. The use of this Polling Place status depends upon an EC configurable option.



the List of Electors with the status "Not Voted", and they may vote under the new record, with the appropriate Oath details associated.

#### **9.01.05 E-Poll Device Operational status**

This status is used to manage available E-Poll Solution functionality and to identify when usernames and credentials must be provided to access E-Poll Solution functionality or perform key functions. Valid states are:

- a. "Off": The device is powered down completely, or in a hibernated or sleep state.
- b. "Inactive": The device is powered on, but EOs are not logged in. The device receives updates.
- c. "Active" The device is powered on, EOs have logged in, but the Service Point is not open.
- d. "Open": The device is powered on, EOs have logged in, the Service Point functions to process voters are enabled.
- e. "Paused": The device is powered on, EOs have logged in, the EOs have selected the pause function, the Service Point functions to process voters are disabled.
- f. "Active - Day n Closed ADV": The device is powered on, EOs have logged in, the EOs have selected the daily Advance Poll close poll function, the Service Point functions to process voters are disabled, the counting support functions are also disabled.
- g. "Closed": The device is powered on, EOs have logged in, the EOs have selected the close poll function, the Service Point functions to process voters are disabled, the counting support functions are enabled.
- h. "Reopened": The device is powered on, EOs have logged in, the EOs have selected the close poll function in error, and while the device was in the Closed state, the EOs have selected the re-open poll function, and a Supervising EO has approved the reopening. The Service Point functions to process voters are enabled, the counting support functions are disabled.

Note: At all times when the E-Poll Device is powered on, an EO must be able to access the training functions.

### **9.01.06 Ballot status**

A critical function for EOs is to maintain control over all ballots at all times. The following states are the various states in which a ballot exists at the Polling Place and which must be tracked by EOs for accountability. A complete description of each ballot state is provided in the glossary.

- a. Blank Ballot
- b. Spoiled Ballot
- c. Lost Ballot
- d. Cast Ballot
- e. Unused Ballot
- f. Counted Ballot
- g. Rejected Ballot
- h. Blank PD Ballot
- i. Unmarked Ballot
- j. Marked Ballot

## **9.02. E-Poll Solution Types of Maintenance Terminology**

### **9.02.01 Corrective and Emergency Maintenance**

“Corrective and Emergency Maintenance” refers to repairs to defects so as to enable applications to provide the required functionality and to meet the service level agreement (SLA), including full recovery of applications, unless otherwise approved by EC, including:

- User Interface changes;
- changes to E-Poll Solution interfaces;
- application and middleware functional changes;
- recommended database changes related to enhancements; and
- modification to standard query structure; and report development.

### **9.02.02 Preventative Maintenance**

“Preventative Maintenance” refers to the detection and correction (but only where approved in writing by EC) of latent faults in applications before they become effective faults, including detecting and correcting application events, which if not addressed proactively, could impact applications in production, such as:

- data quality and integrity;
- changing business volumes;

- application of patches;
- proactive performance tuning;
- proactive archiving, if applicable;
- pre-production execution simulation; and
- special testing for application exception events.

### **9.02.03 Adaptive Maintenance**

“Adaptive Maintenance” refers to performing all activities to ensure that application performance and functionality is not adversely affected by a changed or changing environment, including changes to interfacing applications, new applications or packages and technical environment changes, which if not addressed proactively, could impact applications in production, such as:

- providing requirements and supporting upgrades of operating software;
- providing requirements and supporting for new or changed equipment; and
- providing requirements and supporting interfaces, middleware, and application functional and database changes.

### **9.02.04 Perfective Maintenance**

“Perfective Maintenance” refers to performing or supporting, as required, all activities (but only where approved by EC) to ensure that applications operate at peak efficiency, including ongoing improvements to application design and operation to improve stability, reliability, and response times (which may include assessing the bandwidth and the number of users on the E-Poll Solution) with particular focus on areas including: application performance tuning; application response time; batch operations; and database performance tuning.

### **9.03. Configurable and Customizable**

The term configurable refers to functional flexibility which enables E-Poll Solution components to be adjusted to EC requirements by EC staff in accordance with documentation and training provided by the Contractor for the E-Poll Solution. Alternatively, customizable refers to changes to E-Poll Solution components made by the Contractor.

### **9.04. Contract Management Terminology**

The Contractor must provide services to manage the Contract as described in ANNEX A - APPENDIX H – CONTRACT MANAGEMENT.

#### **9.04.01 Governance Framework**

The Contractor shall participate in the various committees established in accordance with the Governance Framework attached here to as ANNEX A – APPENDIX H.1 – Governance Framework.

#### **9.04.02 Client Manager**

A Client Manager is a Contractor representative who has client management experience with E-Poll Solutions. The Client Manager will be responsible for the following:

1. function as a single point of contact responsible for coordinating the day-to-day activities of the work to be completed by the Contractor;
2. facilitate the problem resolution process and aid the escalation of issues;
3. coordinate the service requirements received from the Technical Authority;
4. ensure the compilation and timely issuance of reports set out in Section ANNEX A – APPENDIX E.3 – Specification for Reports of the SOW;
5. review, analyze and make recommendations to the Operations Committee established in accordance with the ANNEX A – APPENDIX H.1 – Governance Framework to improve service performance;
6. chair the Operations Committee meetings, and
7. participate in meetings scheduled by the Technical Authority.

#### **9.04.03 Senior Manager**

A Senior Manager is a Contractor representative assigned to be a member of the Management Committee established in accordance with the Governance Framework.

#### **9.04.04 Executive Representative**

A Contractor executive representative assigned to be a member of the Executive Management Committee established in accordance with the Governance Framework.

#### **9.05. 3rd Party SA&A Compliance Specialist**

The term **3rd Party SA&A Compliance Specialist** means any individual or entity that is unrelated and unaffiliated to the Contractor, contracted by the Contractor to fulfill, at minimum, the following responsibilities for the E-Poll Solution:

- a. Facilitating the Contractor's participation in EC's SA&A program as a point of contact for all issues relating to security and the SA&A program;
- b. Assuring the quality of Contractor security deliverables consistent with EC standards and industry best practices;
- c. Collecting and compiling SA&A evidence for submission to EC; and
- d. Performing an assessment of the solution's compliance to the principles and controls defined in ITSG-33 through the EC SA&A program and the Security Control Profile (SCP). The results of the assessment must be reported to EC at milestones identified in the Contractor Plan per Section 29. CONTRACTOR PLAN.

**9.05.01 Education/Professional Qualifications:**

The **3rd Party SA&A Compliance Specialist** must meet the following qualifications:

- a. Must hold:
  - i. Certified Information Systems Security Professional (CISSP); and
- b. Must hold and at least one of the following:
  - i. Certified Information Security Manager (CISM)
  - ii. Certified Information Systems Auditor (CISA)

**9.05.02 Experience:**

The **3rd Party SA&A Compliance Specialist** must have the following minimum experience:

- a. Must have a minimum of six (6) cumulative years of experience within the last ten (10) years in any of the following areas:
  - i. The audit of information technology and systems; or
  - ii. The development and implementation of SA&A programs.

## ANNEX A - APPENDIX B – ACRONYMS

### 10. ACRONYMS

AARO	Additional Assistant Returning Officer
ADV	Advance Poll
API	Application Program Interface
BPM	Business Process Model
CAB	Change Advisory Board
CCS	Contractor Central Server
CEA	Canada Elections Act
CI	Configurable Items
CMDB	Configuration Management Database
COTS	Commercial Off-The-Shelf
CPC	Canada Post Corporation
CPS	Central Poll Supervisor
CSE	Communications Security Establishment
DC	Data Centre
DDS	Detailed Design Specification
DHS	Definitive Hardware Store
DR	Disaster Recovery
EC	Elections Canada
ECHQ	Elections Canada Headquarters
ED	Electoral District
EO	Election Officer

E-Poll	Electronic Poll
FLE	Final List of Electors
FREM	Field Readiness and Event Management
FSC	Forward Schedule of Changes
GC	Government of Canada
GE	General Election
IAM	Identity and Access Management
IGP	Internal Gateway Protocol
ISO	International Organization for Standardization
IT	Information Technology
ITIL	IT Infrastructure Library
ITSG	Information Technology Security Guidance
KPI	Key Performance Indicators
L/C	Lot and Concession
MITIS	Management of Information Technology Security
MPLS	Multiprotocol Label Switching
MR	Mobile Route
NROE	National Register Of Electors
OLE	Official List of Electors
ORO	Office of the Returning Officer
OSPF	Open Shortest Path First
PD	Polling Division
PDLC	Product Development Lifecycle

PKI	Public Key Infrastructure
PLE	Preliminary List of Electors
PO	Post Office
PP	Polling Place
PPPE	Polling Place Process Enhancement
PS	Polling Station
RACI	Responsible, Approver, Consulted, Informed
REST	Representational State Transfer or Restful Web Services
RFC	Request for Change
RLE	Revised List of Electors
RO	Returning Officers
RPO	Recovery Point Objective
RR	Rural Route
RTO	Recovery Time Objective
SCP	Security Control Profile
SEO	Supervising Election Officer
SLA	Service Level Agreement
SLR	Service Level Requirements
SOC	Security Operations Centre
SOR	Statement of Requirements
SOV	Statement of The Vote
SOW	Statement of Work
SRTM	Security Requirements Traceability Matrix



SS	Suburban Service
STRM	Section-Township-Range-Meridian
SVR	Special Voting Rules
TBS	Treasury Board of Canada Secretariat
TC	Transfer Certificate
TR&R	Technology Refreshment and Replenishment
UAT	User Acceptance Testing
VIC	Voter Information Card
VSM	Voting Services Modernization

## **ANNEX A - APPENDIX C – CANADIAN FEDERAL ELECTORAL EVENT E-POLL CONTEXT**

This section provides a high-level overview of the Elections Canada (EC) procurement environment, and the business outcomes being sought through the E-Poll Solution.

### **11. FEDERAL POLLING PLACE OVERVIEW**

There are 338 seats in Parliament each representing one of 338 Electoral Districts (ED) in Canada. A General Election involves all 338 EDs at the same time. Between General Elections there may be one or more By-Elections, where Electors of one or more EDs elect a member of Parliament to replace a member who has resigned or is deceased.

Each ED is comprised of a number (45-250) of Polling Divisions (PD) – non-overlapping geographic areas. The comparable term "precinct" is not used in Canadian Electoral Events; the term "Polling Division" is used instead. While EC must produce Election results by ED on a timely basis on the night of Election Day, there remains a requirement to produce results for publication after the Electoral Event at the PD level. Election results must be published for each PD, and aggregated to produce the Election result for each ED.

#### **11.01. High-level description of Elections Canada Polling operations**

The primary goals of polling are:

1. To ensure that each eligible Elector who wants to vote receives a ballot and votes in accordance with the CEA;
2. To obtain an accurate count of Elector ballots in support of each Candidate;
3. To ensure that only ballots of eligible Electors are included in the count, and only one ballot for each such Elector; and
4. To make an auditable record of polling operations which enables a court of law to verify that the first three goals have been accomplished in compliance with applicable legislation.

The primary threats to achieving these goals are:

1. Human error in the form of procedural non-compliance by Election Officers;
2. Intentional or unintentional misconduct by a voter; and
3. Misconduct by partisan entities seeking to obtain an unfair advantage in the Election.

Procedural controls are embedded in the current process to detect and deter these situations from happening. In addition to functional requirements, there will be procedural and technical controls to ensure security of the voting process.

### **11.02. Registration and Voting**

EC maintains a National Register of Electors (NROE) which is used to produce lists of Electors. At the beginning of an Election, a Preliminary List of Electors (PLE) is provided to registered political parties and to the Returning Officer in each Electoral District. Candidates who register to run in an Election are also provided a copy of this list. Revisions to the list are conducted through several channels which result in the Revised List of Electors (RLE) which is used at Advance Polls. Additional revisions to the list at Advance Polls and through other channels are collected to produce the Official List of Electors (OLE) which is the list used on Election Day. After the event, EC produces a Final List of Electors (FLE) which incorporates all changes made during the Election for official records and distribution to members of Parliament and political parties.

Regardless of whether an Elector is on the list when they attempt to vote, at the time of voting each Elector must provide sufficient identity documents which establish who they are and where they reside. When an elector is correctly recorded on the list of Electors, voting is greatly expedited, however unregistered Electors may register at the polls on Polling Days, and registered Electors may make changes and corrections to their information on the list at the polls.

There are four days of "advance" polling on the 10<sup>th</sup>, 9<sup>th</sup>, 8<sup>th</sup> and 7<sup>th</sup> day before Election Day, and one day of "ordinary" polling on Election Day. EC mails to each Elector on the List of Electors a Voter Information Card (VIC) which informs the Elector of the location and hours of operation of the Advance and Ordinary Polling Places where they may vote. The VIC has a bar-code which identifies the Elector's unique combination of ED, PD and List of Electors' sequence number for the current Election.

The List of Electors used at Polling Places also carries voted information for the current Election. EC offers a variety of services under Special Voting Rules (SVR) and Electors who have been issued a ballot under these rules are marked as having voted on the RLE and OLE. In addition, Electors who vote at Advance Polls are marked as having voted on the OLE.

A key change to polling operations enabled by technology is that Election Officers (EO) working in a Polling Place may share a common electronic List of Electors. This would facilitate a process whereby an Elector may be served at any Point of Service within a Polling Place.

However, this process is contingent upon legislative changes. It would mean Electors can be served by the next available Service Point instead of waiting in line to be served at the table assigned to their polling division, as is the case currently required by the CEA. This modification also opens the possibility of Election Officers (EO) taking breaks without closing down voting for their Polling Division completely.

In the envisioned E-Poll Solution which requires legislative changes, Electors who arrive with their VIC and acceptable ID will be sent to express service lines where EOs can confirm that their ID is acceptable, that they are correctly recorded on the list, and that they have not yet been issued a ballot. These ready-to-vote Electors will be able to vote in the most expeditious manner.

Electors who must register at the poll or make changes to their information on the List of Electors will be served at Full Service Points. While this is a longer process, the specialization of these EOs applying appropriate technology should speed up the process for these voters as well.

For clarity, throughout the statement of requirements, the term "Service Point" is used instead of the term "poll" or "polling station" to avoid confusion with the term "Polling Place". A Polling Place – such as a school gym – will have an associated address, and will be identified on a voter's VIC as the place to go for Polling Day services. Within a Polling Place there will be one or more "Service Points" – tables where Election Officers will serve them. The number of Service Points will be a function of the size of the catchment of the Polling Place (i.e. the number of Polling Divisions served by the Polling Place).

At each Polling Place, all Electors will receive the same type of ballot.

During the service experience, in addition to providing acceptable ID, Electors may have to take a written or verbal Oath, or sign a declaration, to confirm that they are allowed to receive a ballot. The reasons include:

- A signed declaration of qualification when registering at the polls;
- A signed Oath of Residence for an Elector to attest to their residential address when they do not have acceptable ID to prove residential address;
- A signed Oath of not having voted when the list indicates an Elector has voted and the Elector is prepared to swear that they have not voted;
- A verbal Oath when an Elector's qualification or residence is challenged; and

- A verbal Oath when an Elector's information on the list differs from what appears on their ID documents.

In addition, other persons may be required to provide a written or verbal Oath in support of an Elector. The reasons include:

- A signed Oath attesting to another Elector's Residence,
- A verbal Oath of assistance when an Elector requests assistance by a family member or friend to mark the ballot, and
- A verbal Oath for a person used at an Elector's request to serve as a language or sign-language interpreter.

In addition to these requirements, some Electors will be authorized to vote at a Polling Place which is not the one where they should vote. To do so, an Elector must request and receive a "Transfer Certificate" which specifies the alternate Polling Place where that Elector may vote. The Elector must then present the Transfer Certificate at the alternate Polling Place to establish their eligibility to vote there as an alternative to being found on the list or registering to vote.

Each Elector who is issued a ballot and incorrectly handles the ballot so that it cannot be used may request that the Spoiled Ballot be set aside and another be given to them in its place. EOs place Spoiled Ballots in a special envelope kept for that purpose, and then reissue another to the Elector. An Elector is only entitled to one additional ballot when they spoil the first ballot. Regardless of the handling of the second ballot, it must be cast. (For clarity, the term Rejected Ballot refers to a ballot which, once taken from the ballot box after polls close, is not counted because it does not meet the requirements for a "counted" ballot as specified by the CEA. Ballots are only spoiled during polling hours, and always are un-voted ballots that never enter the ballot box. Ballots are only rejected by EOs during counting, after the close of polls, and always represent ballots that have been cast).

To assist EOs to make a record of proceedings at the Service Point, the E-Poll Solution must:

- 1) For each Elector who will be allowed to vote, permit the EO to locate, create or correct a record for the Elector on the List of Electors by:
  - a) locating, and correcting when necessary, the Elector on the List of Electors (including Electors who are already Marked as Voted in error and who have taken the requisite Oath), or

- b) registering the Elector and having the Elector sign a declaration of qualification, or
  - c) recording a Transfer Certificate.
- 2) Verify, for each Elector who is on the List of Electors and who has been issued a ballot, that the Elector had not yet voted by:
  - a) verifying the status is "not voted", or
  - b) recording that an Elector who claims their Elector voted status is in error has taken the requisite Oath that they have not voted.
- 4) Record for each Elector who is allowed to vote, that the Elector:
  - a) was issued a ballot, and
  - b) has returned the ballot issued to them and placed the ballot in the ballot box.
- 5) Record the identity of Electors who do not return their ballots, and thereby the number of Lost or Stolen Ballots as the difference in number between the Electors who have been issued ballots, and the number of Electors who have returned their ballot.
- 6) Record the number of ballots spoiled by Electors or set aside as spoiled by EOs and placed in the envelope for this purpose.
- 7) Assure that ballots are properly accounted for at all times, regularly record and report to EOs the number of ballots in all states at the Service Point (lost or stolen ballots, Spoiled Ballots, the number of ballots in the ballot box, and the number of remaining Unused Ballots) and the sum of these quantities as the number of ballots provided to, or removed from, the Service Point.
- 8) Provide the EO the ability to update the number of Spoiled Ballots, if any, at any time throughout the day for balancing purposes.
- 9) Record each time:
  - a) an Elector or other person takes an Oath or signs a declaration, and
  - b) an Elector, having been requested to take an Oath, refuses to do so.
- 10) Record each occurrence of a Candidate or Candidate Representative objecting to a decision made at the Service Point pertaining to an Elector's qualification or residence. In the case of

an objection during the count, record the objection and whether a ballot is counted or not when objected to.

- 11) Record any other unusual events which affect the normal operation of the Service Point or the Polling Place.
- 12) Assure the security of all of the above records by providing sufficient electronic controls to ensure that EC or courts of law can verify the proper operation of the Service Point after the Election, specifically:
  - a) The integrity of the records is assured (prevention of tampering).
  - b) The availability of the records is assured (backup and recovery).
  - c) The records are not accessed by unauthorized persons or used by authorized persons for unauthorized purposes (including privacy safeguarding of Elector personal information on the List of Electors and in all other records created at the poll).

### **11.03. Volumetric**

As noted above, there are 338 EDs across Canada which each hold an individual Election for a member of Parliament. A Returning Officer (RO) is appointed by the Chief Electoral Officer for each ED to administer the Election, and each RO opens one or more offices from which they coordinate the administration of the Election for their ED. There are 26 million Canadian Electors. The electorate size for Electoral Districts can range from approximately 20,000 to 150,000 Electors.

The E-Poll Solution may be deployed and must be ready to use on Election Day on up to 60,000 E-Poll Devices at up to 20,000 Polling Places across Canada. In addition, the E-Poll Solution may be deployed and must be ready to use for four consecutive days on up to 10,000 E-Poll Devices at up to 3,500 Advance Polling Places across Canada.

## **12. ELECTORAL EVENT TYPES**

There are three types of Electoral Events: General Elections, By-Elections, and referendums. In general, the E-Poll Solution will be useable interchangeably for all event types. The following table identifies requirements that are specific to one event type:

General Elections	198, 199, 239, 288, 292
-------------------	-------------------------

By-Elections	92, 93, 199, 239, 277, 281, 288, 292
Referendums	239, 288

### **13. E-POLL STRATEGIC CONTEXT**

#### **13.01. Problem Statement**

This project is a major undertaking that aims to concurrently seize legislative, business process re-engineering and technological opportunities to address two inter-related problems.

##### **13.01.01 Problems for Electors**

Over the past few decades, the voting process has become increasingly complex. Additional tasks such as providing records of Electors who have voted to Candidates every hour, and administering identification requirements and various Oaths, have resulted in an array of cumbersome manual processes that slow down processing of voters and thus do not meet current voter expectations. In addition, the process can seem complicated for Electors, with repeated presentations of identification when registering or taking Oaths. The legislated restriction which only allows voting at a specific Polling Station results in some Electors being served quickly while others stand in lines (often commenting on the odd fact that there are EOs at Polling Stations not serving any Elector). The longer Electors must wait, the more likely they will be deterred from voting because they don't have sufficient time. EC continually seeks to minimize the possibility that process or administration becomes a factor in leading an Elector to choose not to vote.

##### **13.01.02 Problems for Election Officers**

As complexity for EOs has increased over the years, challenges in maintaining a high degree of compliance with procedures have become increasingly difficult. EC's response to improving compliance has been to add EOs – 20% more for the 42<sup>nd</sup> GE than the 41<sup>st</sup> GE. This has increased the hiring and training requirement for ROs to an average of 740 EOs, with only 24 days available to recruit and train EOs. Despite the increase in workforce, there is little evidence that compliance of procedures by EOs at the polls has been significantly improved.

EOs struggle to make sense of complicated processes, a multitude of forms and the many variations of special circumstances. In addition, they are not afforded any opportunity for meal or rest breaks, and the work day is very long. These circumstances result in tired EOs who are even further challenged by the situation to perform consistently well throughout a very long



day. EOs want to be seen as providing excellent service, and are themselves frustrated when the service does not meet the expectations of Electors. This frustration may cause them to quit, and results in higher turnover and less retention from one Election to the next.

### **13.02. Opportunity Statement**

There is an opportunity for EC to propose and act upon changes to legislation, apply increasingly effective technology, and enhance Polling Place processes to improve services in a way that significantly enhances the voter experience, improves the working conditions for Election Officers, provides better service to Candidates, and improves the ability and agility of ROs to manage peaks and valleys in demand.

## **ANNEX A – APPENDIX C.1 – Polling Place Business Process Models**

### **14. PROCESS DIAGRAMS**

The figures in this section provide an illustration of how the E-Poll Solution could be employed in the Polling Place process in support of EO workflows. Note that activities shown in the diagrams do not show all requirements. These process models will be updated in collaboration with the Contractor, integrating the details of the E-Poll Solution.

#### **14.01. Conventions used in the process diagrams**

##### **14.01.01 Numbering**

- Each process map box and event marker have been numbered sequentially and numbering apply for the current process map only.
- Numbers in boxes beginning with “p” refer to a specific path that an Elector follows, which is referred to in the Heading sections of the POLLING OPERATIONS requirements in ANNEX A - APPENDIX E – STATEMENT OF REQUIREMENTS.

##### **14.01.02 Colours**

The following colours have been used for all process maps:

	Paper or electronic document
	EO activity
	System activity
	Activities applicable only to By-Elections or Advance Polls
	Sub-process or special procedure

### **14.01.03 Lines and arrows**

- Solid lines with arrows show the path the EOs will follow to complete a transaction;
- Dotted lines with arrows show information used or produced by an activity;
- A bolded line around a box indicates a step in the “Happy Path”.

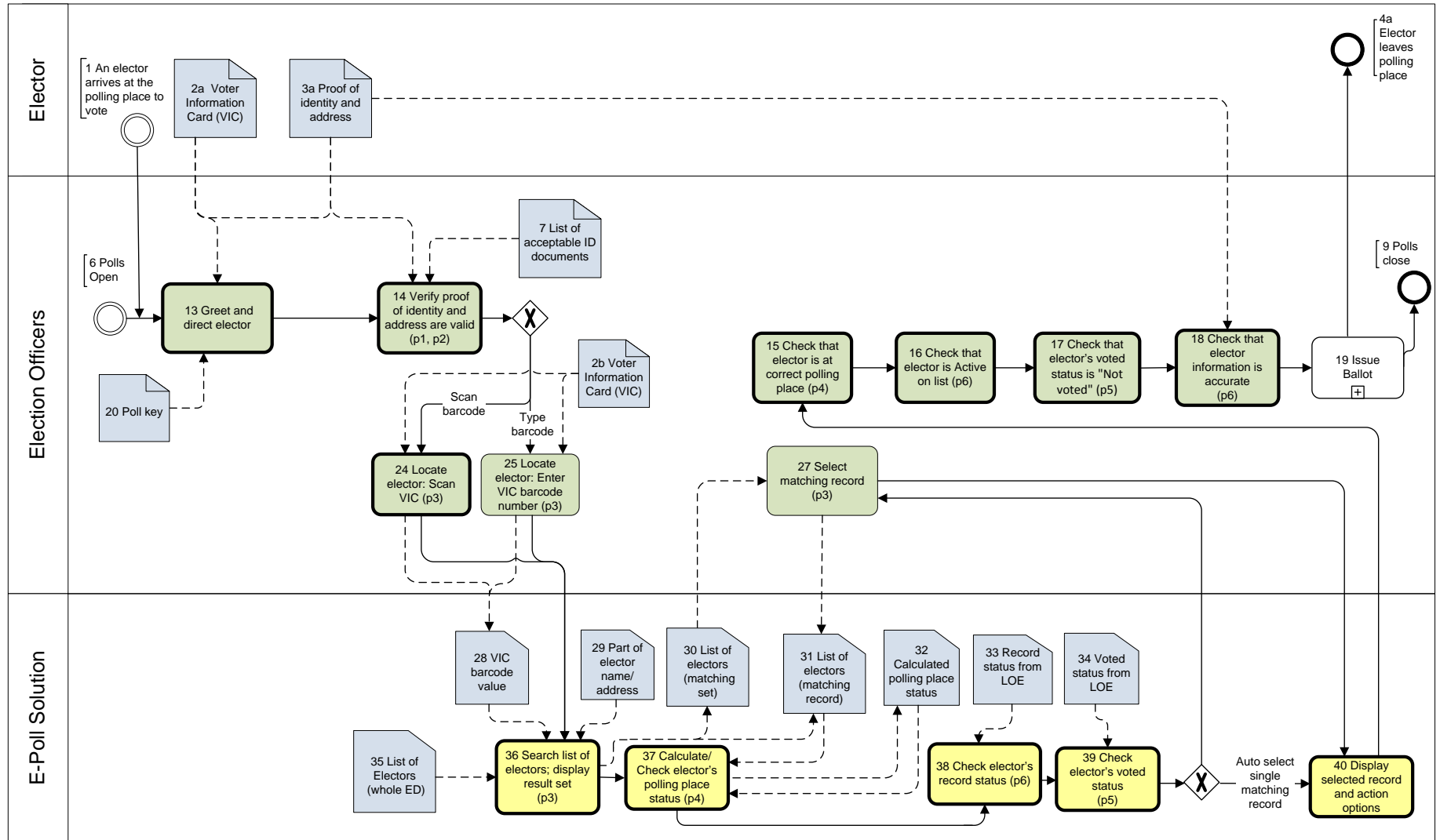


Figure 2 – BPM Check-In (showing Happy Path)

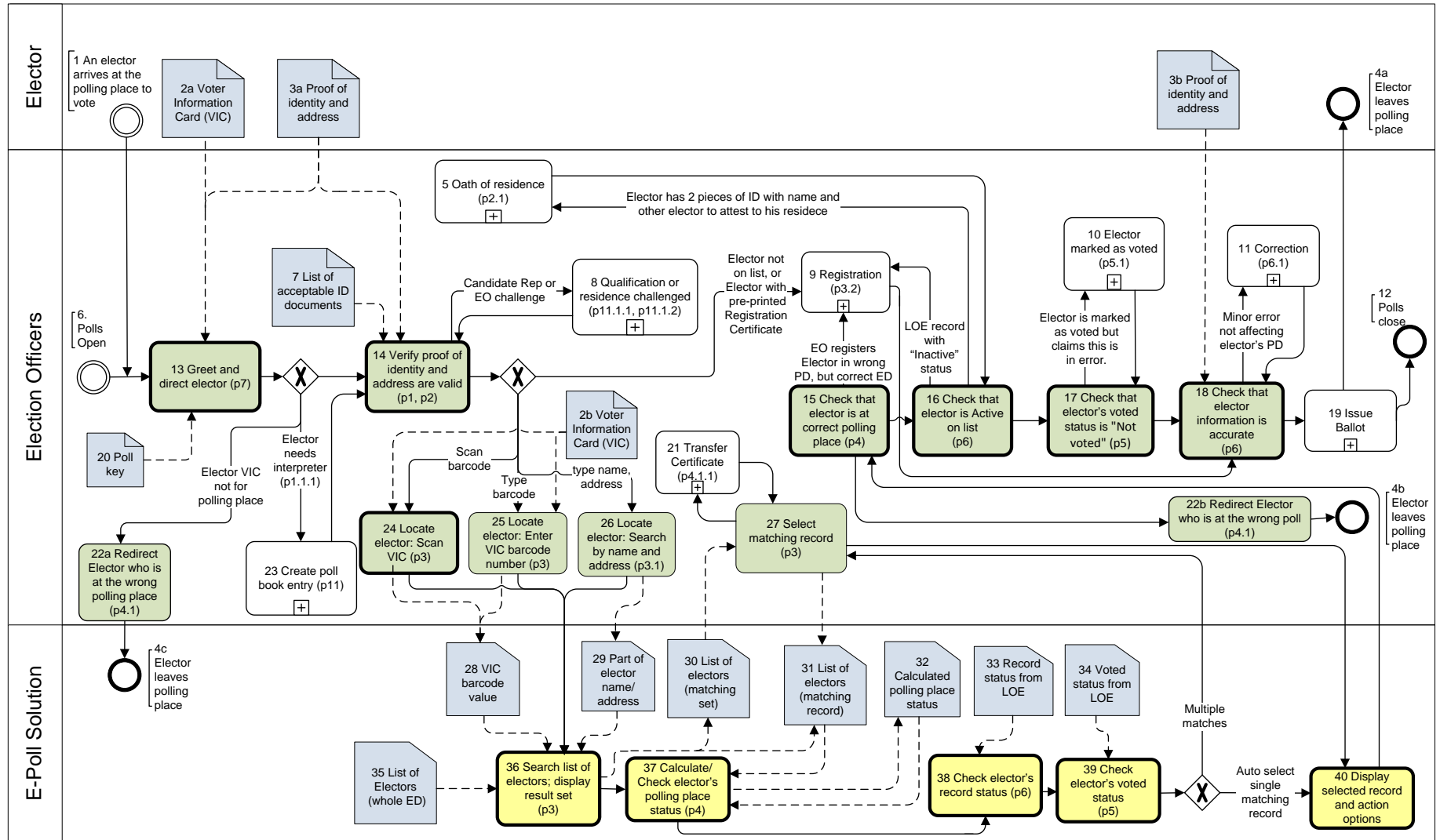


Figure 3 – BPM Check-In (with exceptions)

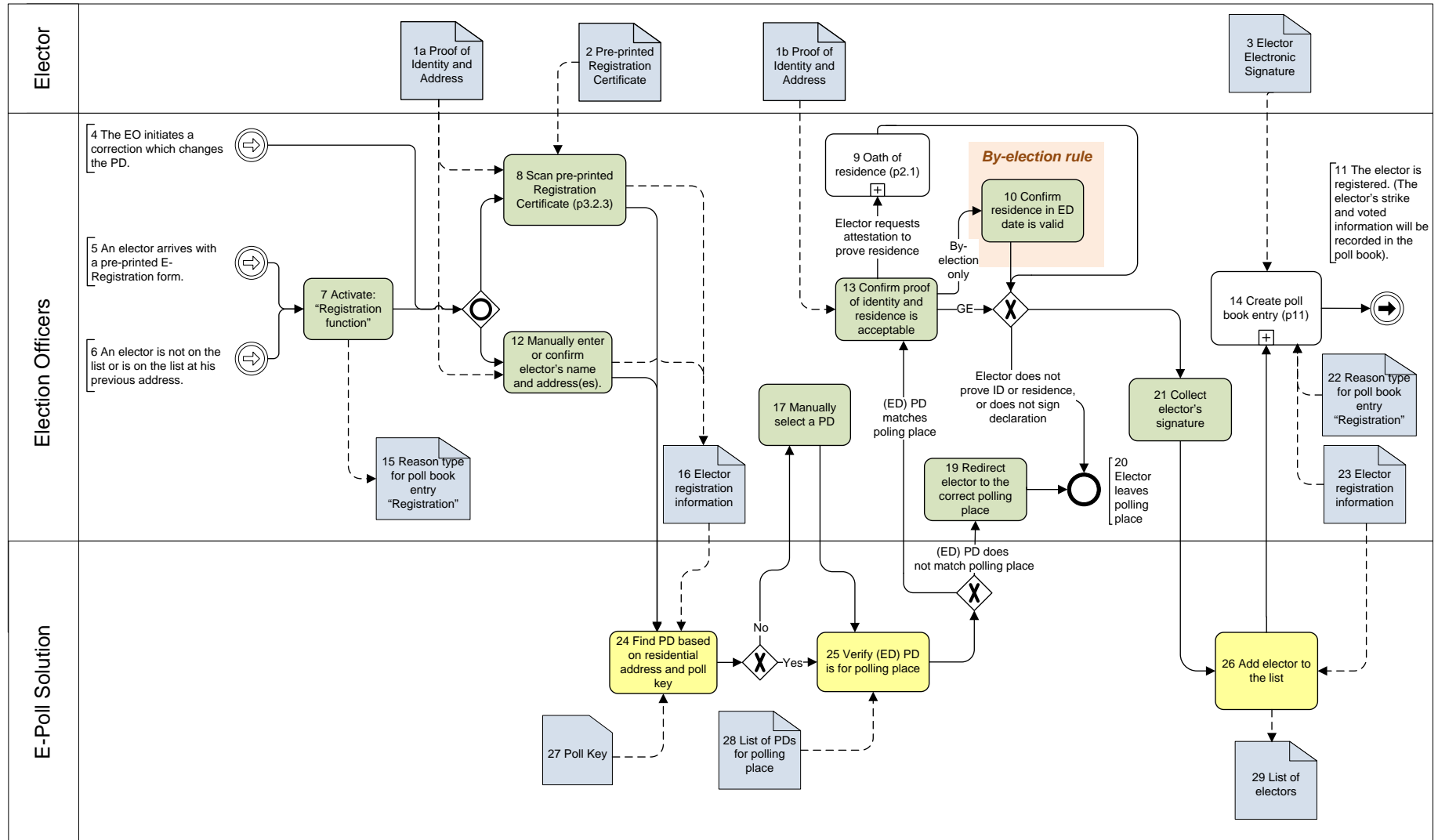


Figure 4 – BPM Registration

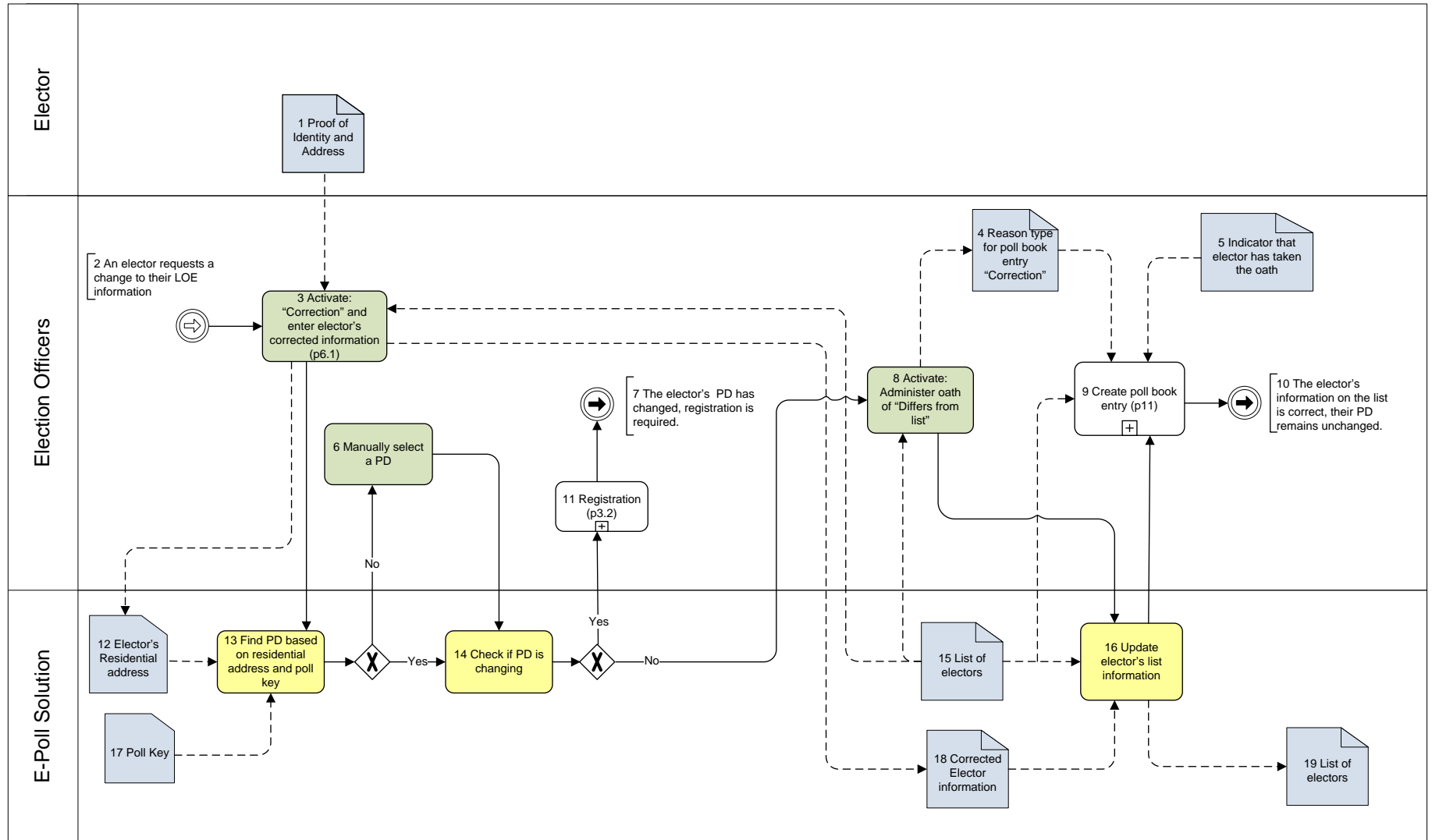


Figure 5 – BPM Correction

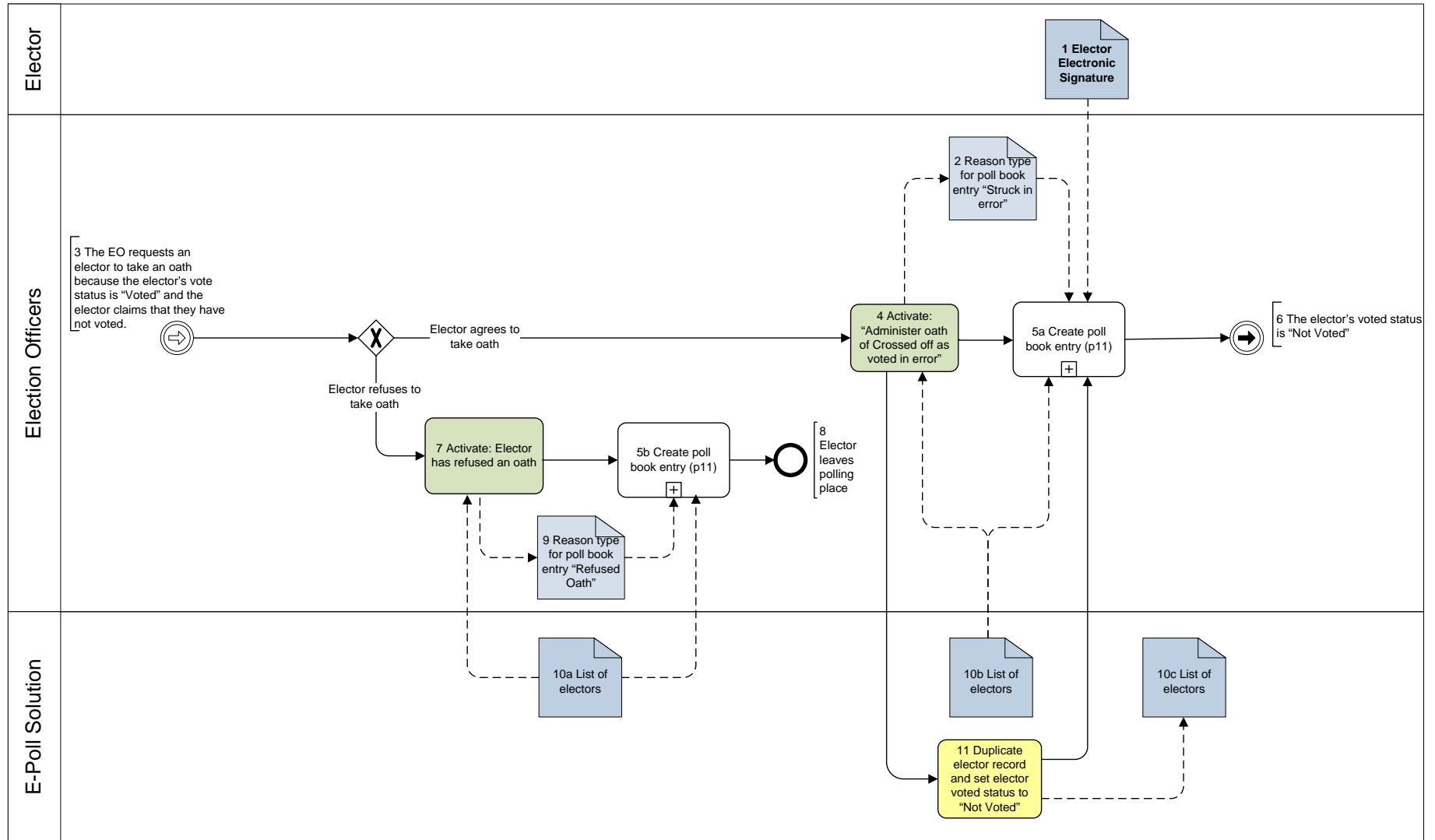


Figure 6 – BPM Crossed off as Voted





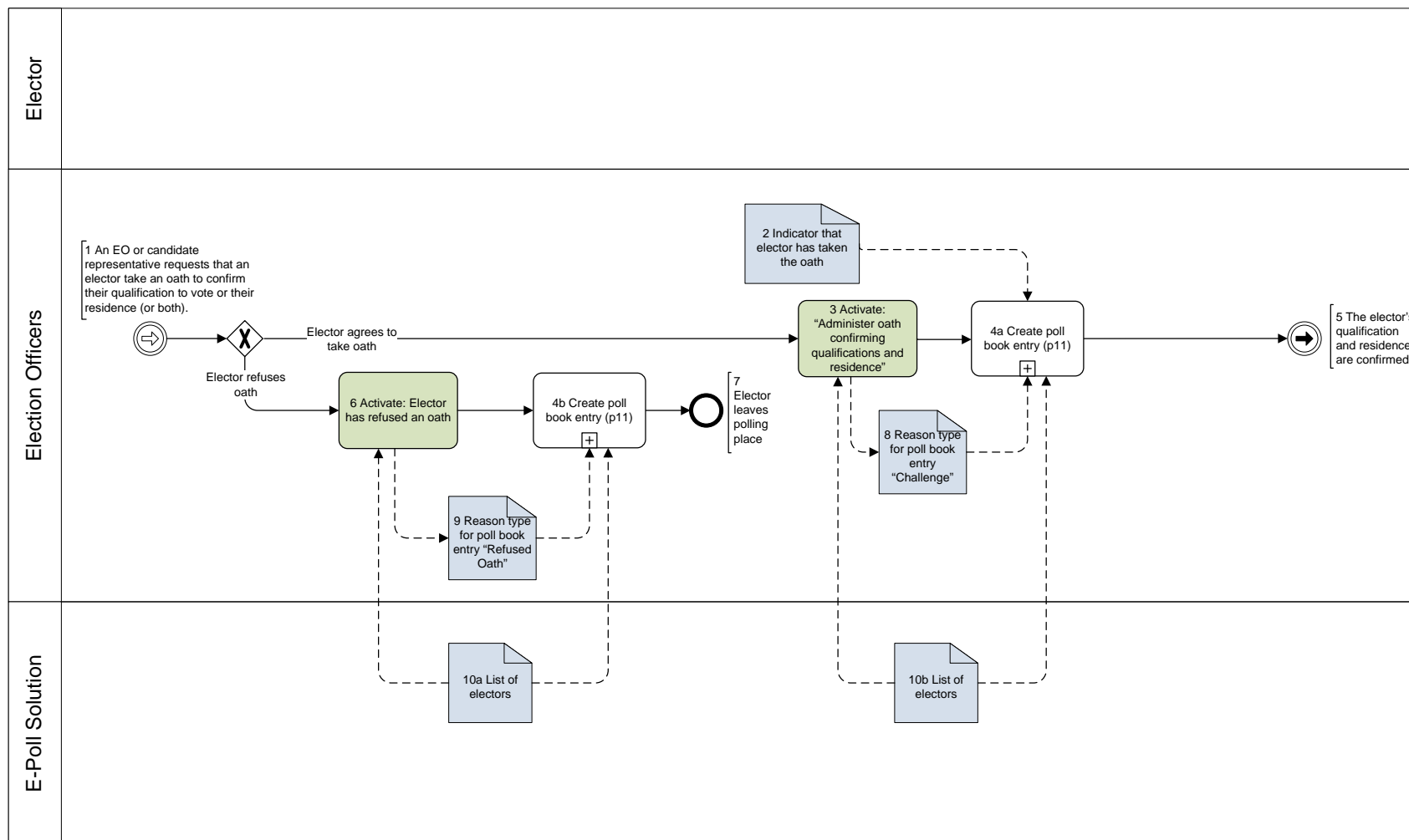


Figure 8 – BPM Oath of Qualification and Oath of Residence

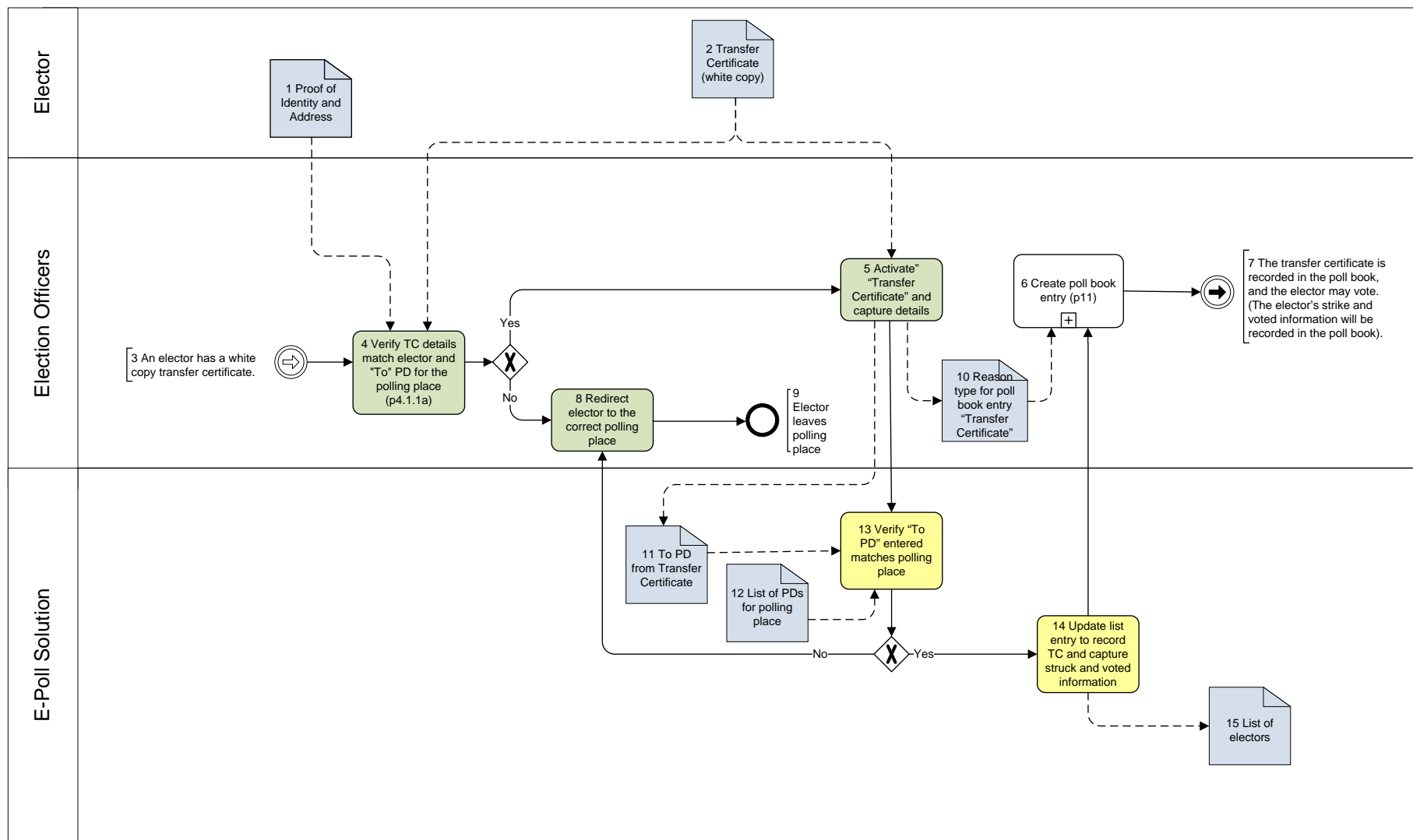


Figure 9 – BPM Transfer Certificate



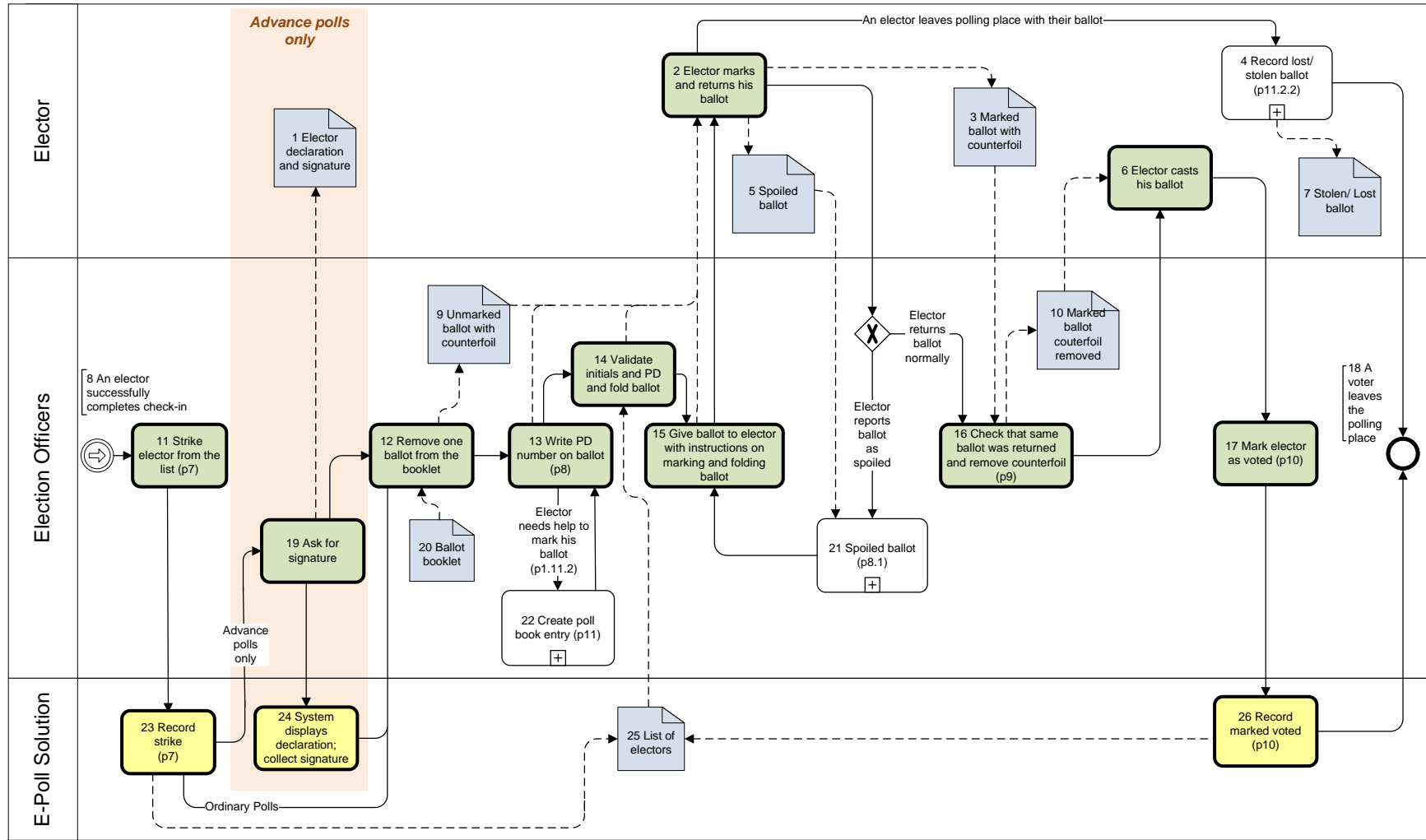


Figure 11 – Issue Ballot (with exceptions)

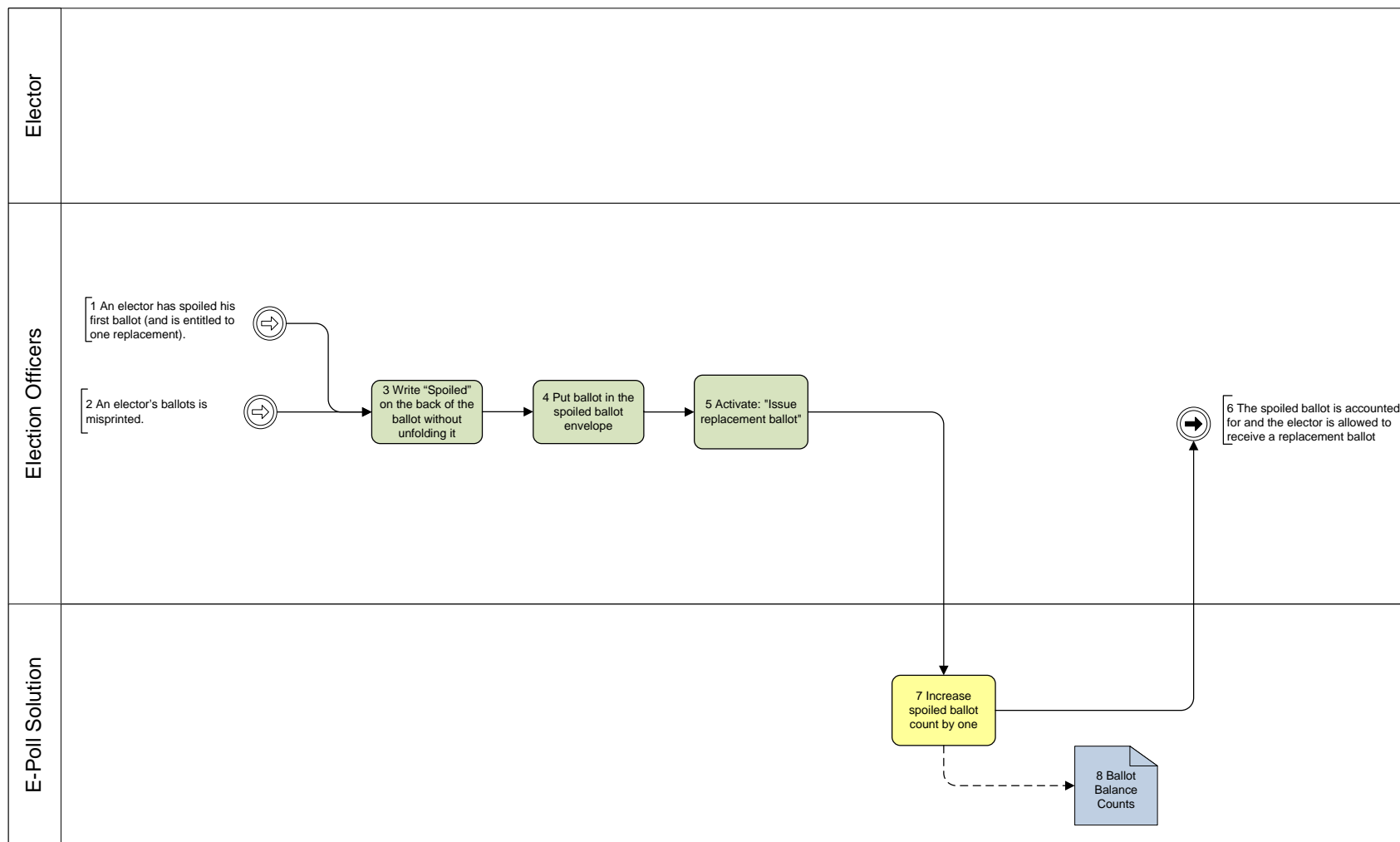


Figure 12 – BPM Spoiled Ballot

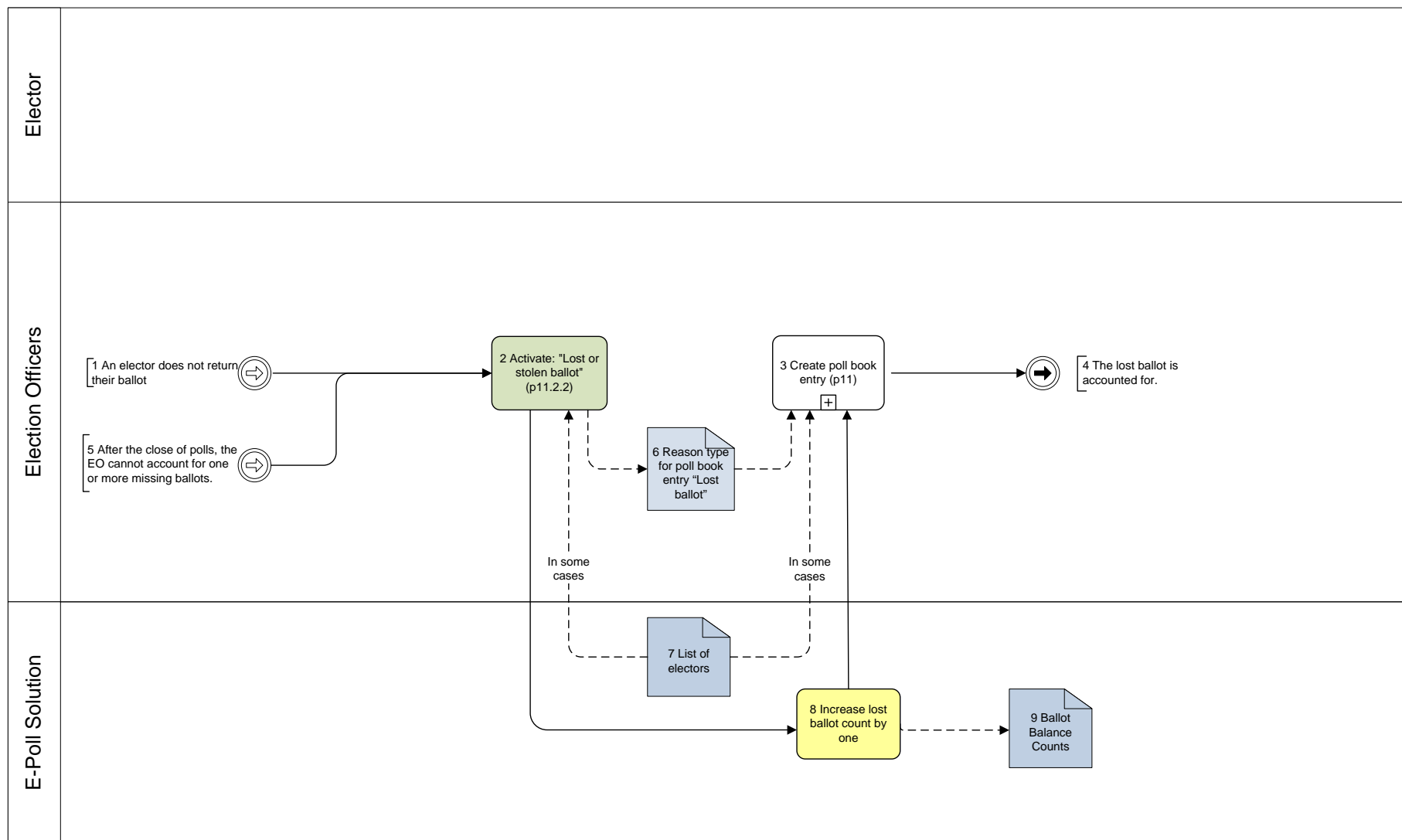


Figure 13 – Lost or Stolen Ballot

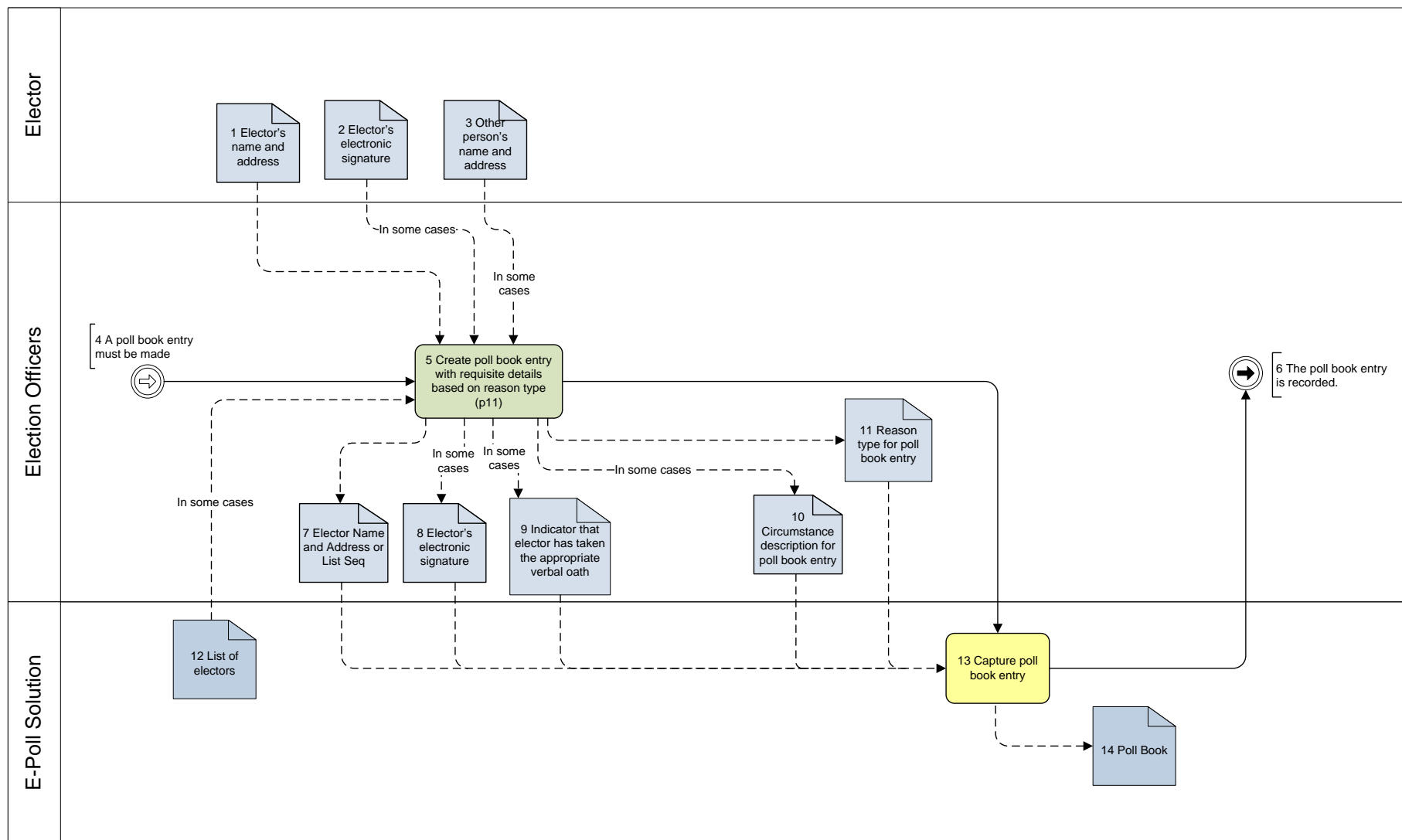


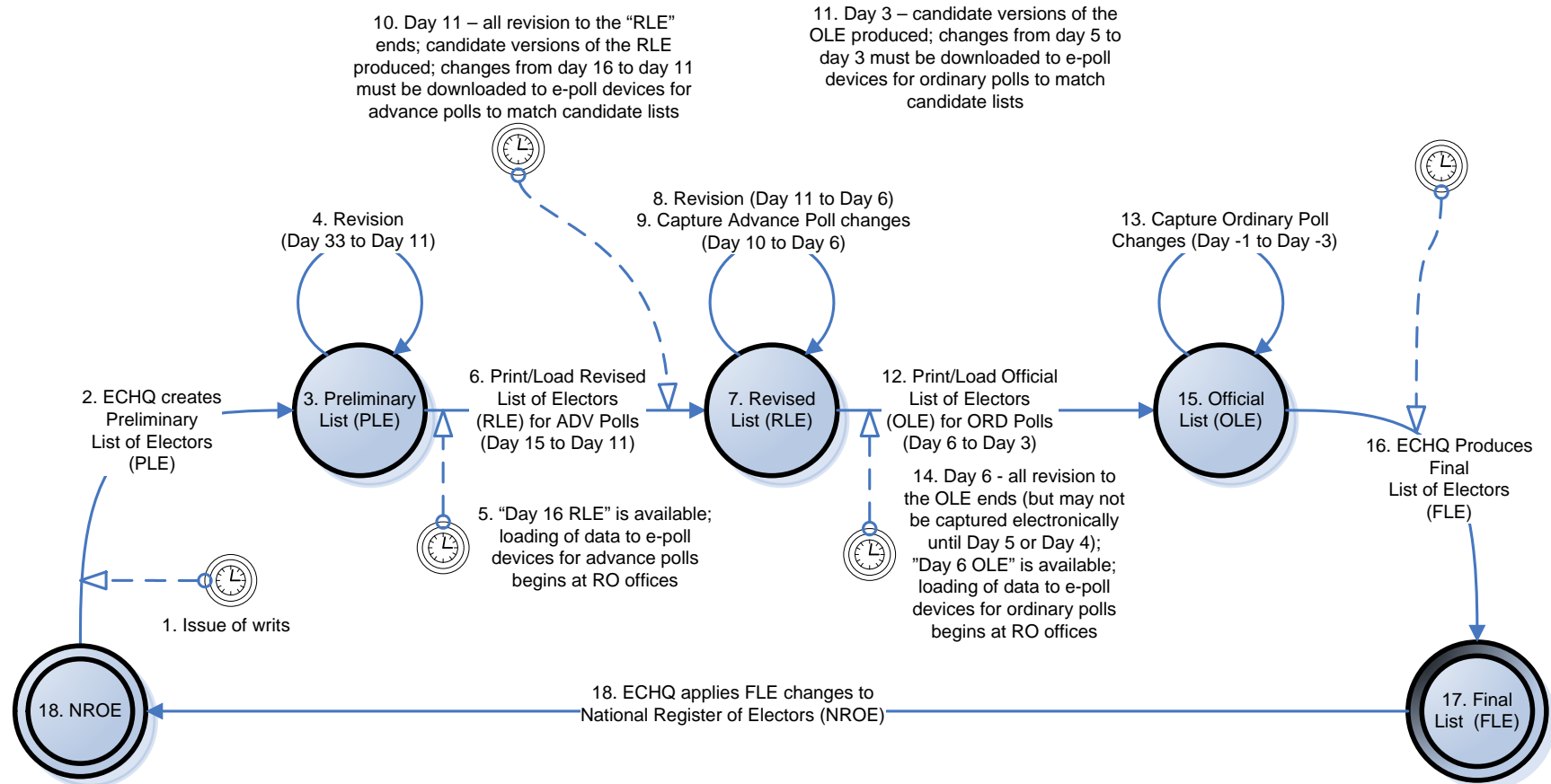
Figure 14 – BPM Poll Book Entry



## **ANNEX A – APPENDIX C.2 – Polling Place Entity State Diagrams**

### **15. STATE DIAGRAMS**

The figures in this section provide an illustration of key states of various business entities in the Polling Place. They are examples and should not be construed as limiting suppliers' proposed E-Poll Solutions should it differ with the figures



Note: The electoral calendar dates shown on this diagram reflect legislative deadlines, however, changes may occur after the deadlines, and these changes must be propagated to the E-Poll devices as they are made available by EC.

**Figure 15 – State Diagram for Lists of Electors**

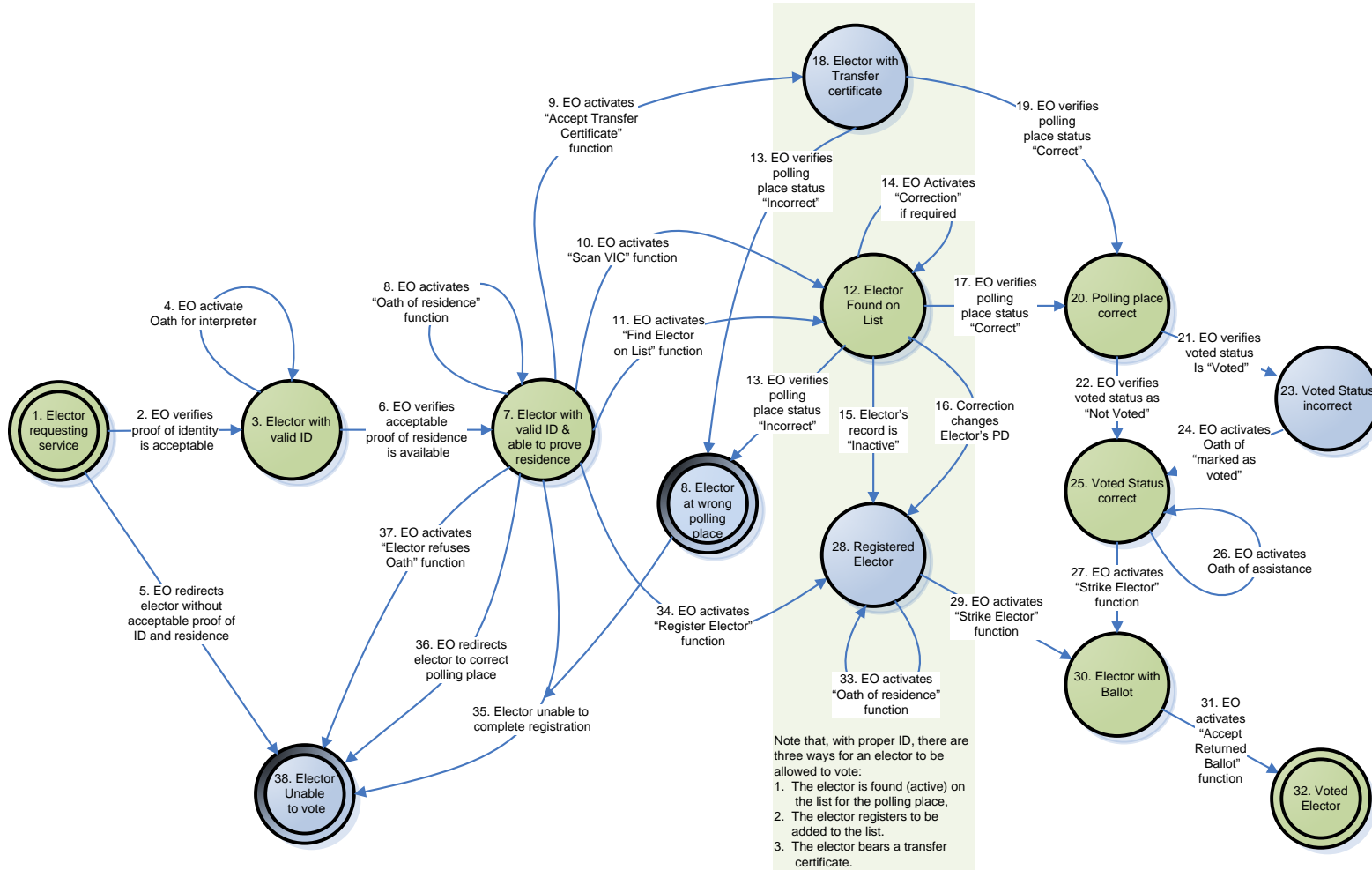


Figure 16 – State Diagram for Electors

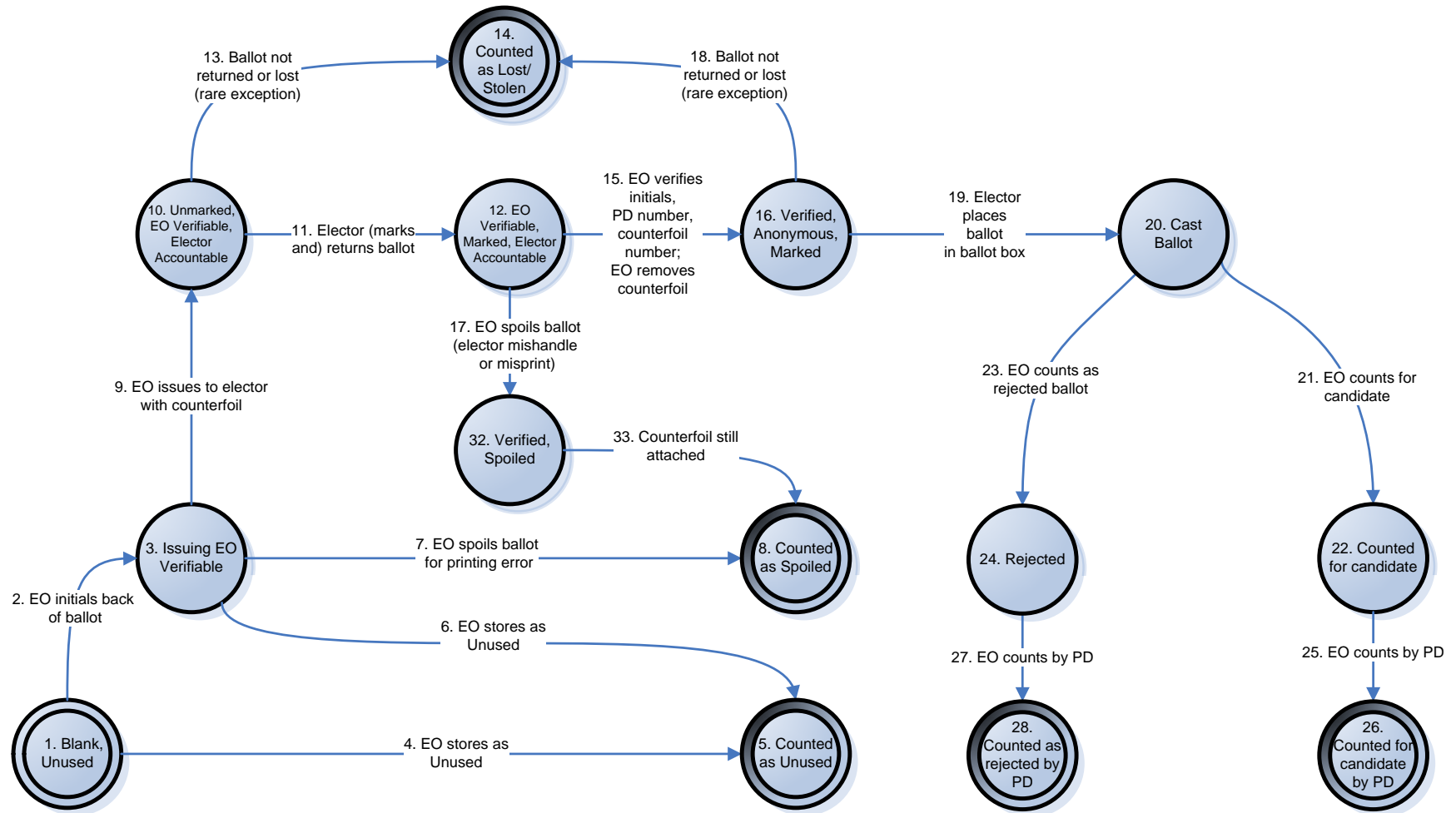


Figure 17 – State Diagram for Ballots

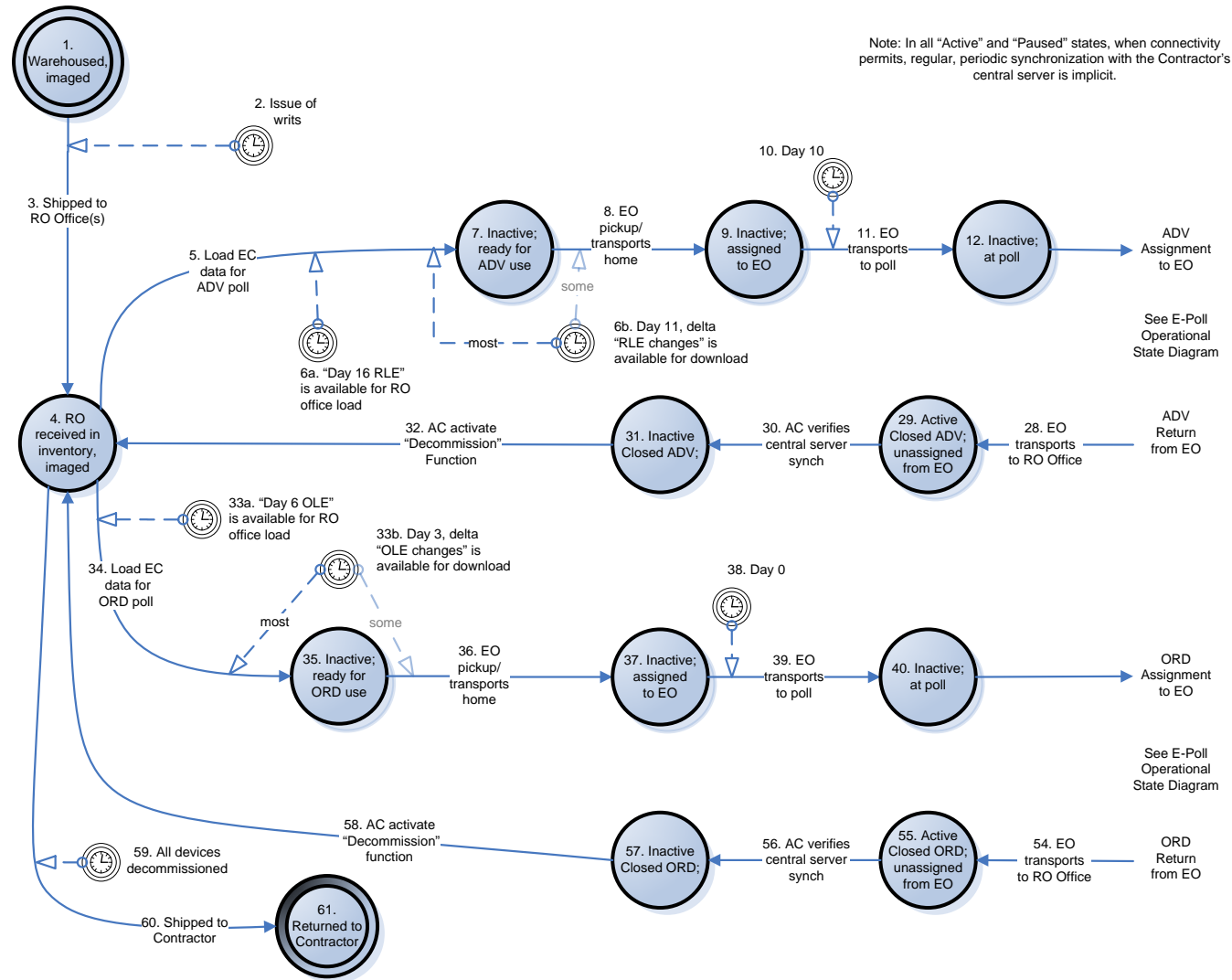


Figure 18 – State Diagram for E-Poll Devices – RO Office

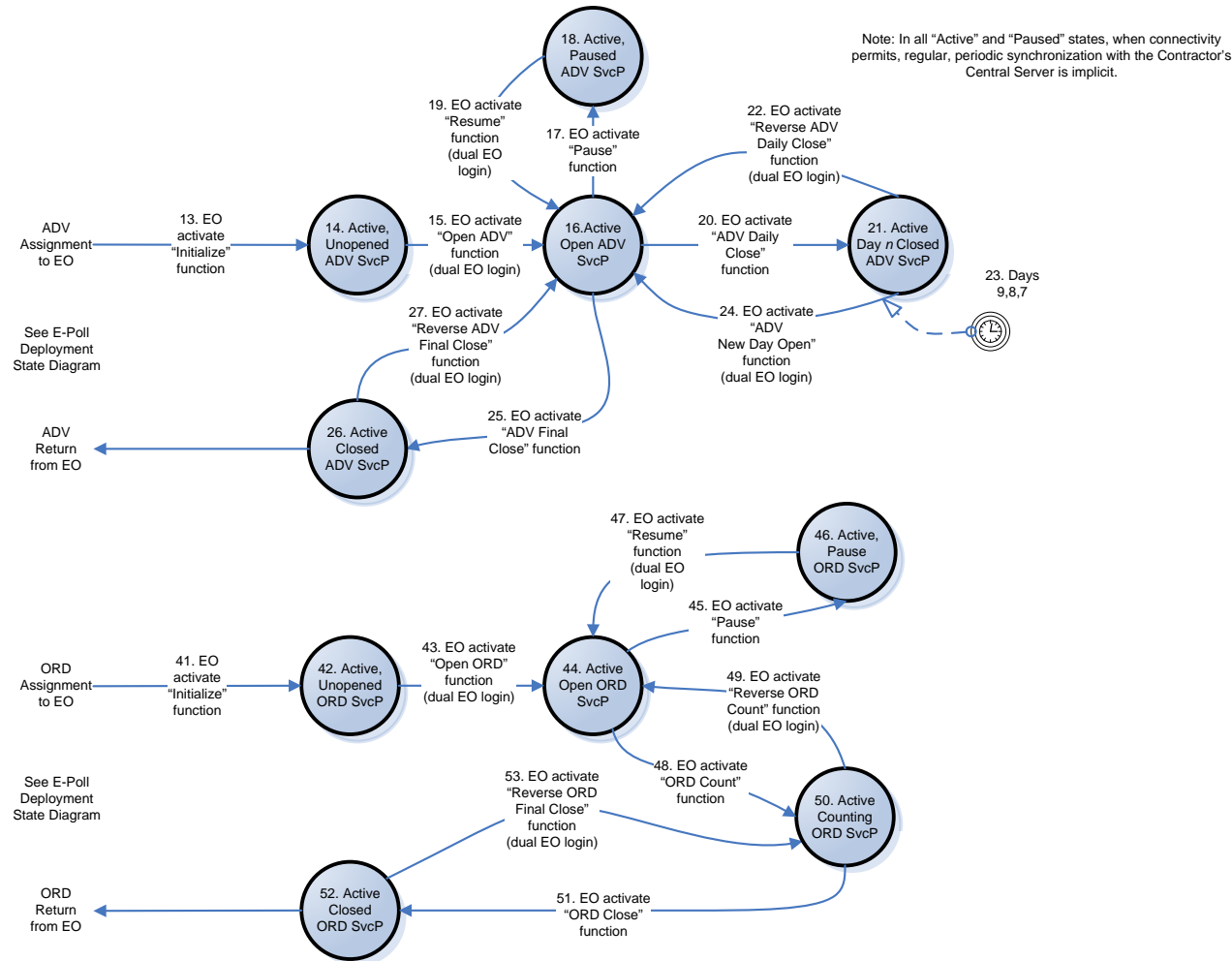


Figure 19 – State Diagram for E-Poll Devices – Polling Places

## **ANNEX A – APPENDIX C.3 – Counting Process Conceptual Solution**

### **16. COUNTING**

The E-Poll Solution anticipates changes to legislation which will permit a more effective voting process model where technology is present. The improvements come with necessary changes to how recording of the manually counted ballots will occur, because under the envisioned E-Poll Solution, Electors from more than one PD will be served by a Service Point. EOs will be required to write the PD number for each Elector on the back of the ballot when the ballot is provided to the Elector.

At counting, EOs will manually count (by hand) results by Candidate, by PD, entering these results into the E-Poll device. After the count is complete and recorded in the E-Poll Device, if ballots have been found to be missing the PD indicator, because an EO has forgotten to record the PD number on any ballots when they issued them, these ballots will have to be allocated to a PD. In this case, the E-Poll Solution will allocate a PD number consistent with the manual count (by Candidate) and the number of Electors struck in each PD.

This section describes how the counting process is envisioned, and how the E-Poll Solution addresses the additional complexity in recording the manually Counted Ballots introduced in the new service model. This process begins when all Electors have been served, have left the Polling Place, the doors have been locked for counting, and the E-Poll Device has been placed into the appropriate state to record the results of the manual count.

#### **16.01. Recording the manually Counted Ballots**

*Note: In the figures that follow, the values in shaded fields are entered by the Election Officers using the device or are buttons the EO needs to touch or click on. These screens are rough approximations intended to convey information only about process and content, not meant to be a design layout or look and feel.*

At the beginning of the day, EOs will enter the number of ballots that have been issued to them, during the opening of the poll processes. Throughout the day, if the number of ballots is changed because additional ballots are provided to the Service Point, or ballots are removed to another Service Point, EOs will enter this change. The E-Poll Device records and tracks all ballots issued, returned and lost. Therefore, at the end of the day, the E-Poll Device must calculate the number of Unused Ballots which should be remaining at the Service Point, and require the EOs to verify that the number matches the number of ballots left. (The calculated number is the actual number of ballots they have received – recorded on the device earlier, less

the number of ballots the device has recorded as used – also tracked by the device and already present). This basic accounting of ballots is a key ballot control function, and part of the requirements as a recurring activity throughout the day when time permits. Functionality is defined in support of it.

1. **E-Poll Device step/screen 1a – Enter the number of Unused Ballots:** At the close of polls, before the opening of ballot boxes, EOs will count the number of Unused Ballots that they have remaining, and enter this number into the device:

**Step 1a:**

*Enter the number of Unused Ballots*

Count and enter the number of Unused Ballots	98
--	----

NEXT >

Upon clicking the “next” button, if the number matches what the E-Poll Device has, the EOs must be brought to screen 1d, Account for all ballots (used and unused), below.

Upon clicking the “next” button, if the number doesn’t match what the E-Poll Device has, the EOs must be brought to screen 1b, below, and prompted to count the Spoiled Ballots in the envelope and check that the number displayed is correct. It is expected that the most common reason for a mismatch will be that the EOs have either moved poorly printed ballots into the spoiled envelope, or reissued one to an Elector, and not recorded the activity in the E-Poll Solution. The E-Poll Solution therefore allows them to correct the number of Spoiled Ballots at this point.

**Step 1b:**

*Enter the number of Spoiled Ballots*

Count and enter the number of ballots in the Spoiled Ballot envelope	2
--	---

NEXT >



Upon clicking the “next” button, if the number still does not match what the E-Poll Device has, the EO will see screen 1c and will be asked to recount and confirm the numbers.

**Step 1c:**

<i>Account for all ballots (used and unused)</i>	
<b>Ballots received</b>	<b>400</b>
<b>Additional ballots received</b>	<b>0</b>
<b>Ballots removed</b>	<b>0</b>
<b>Total number of ballots issued to this Service Point</b>	<b>400</b>
<b>Total number of ballots used</b>	
Electors who voted today	300
1b. The number of Spoiled Ballots	2
Lost and stolen ballots	0
<b>Total Ballots Used</b>	<b>302</b>
	<b>-302</b>
Number of Unused Ballots that should be left	<b>98</b>
1a. Confirm the number of Unused Ballots:	97
Difference	1

**Warning:** The numbers entered do not match what E-Poll has calculated for remaining ballots. Please, **recount and correct numbers as necessary** or click “next” to continue with an imbalance.

NEXT >

Upon clicking the “next” button in screen 1a, if the number entered matches what the E-Poll Device has, the EO will see screen 1d:

**Step 1d:**

<i>Account for all ballots (used and unused)</i>	
<b>Ballots received</b>	<b>400</b>
<b>Additional ballots received</b>	<b>0</b>
<b>Ballots removed</b>	<b>0</b>
<b>Total number of ballots issued to this Service Point</b>	<b>400</b>
<b>Total number of ballots used</b>	
Electors who voted today	300
Spoiled Ballots	2
Lost and stolen ballots	0
<b>Total Ballots Used</b>	<b>302</b>
	<b>-302</b>
Number of Unused Ballots calculated by E-Poll	<b>98</b>
Number of Unused Ballots manually counted	<b>98</b>
<b>Difference</b>	<b>0</b>

2. **E-Poll Device step/screen 2 – Recording the results of the manual count by Candidate, by PD:** The device will prompt the EOs to open the ballot box and perform a count of all ballots by Candidate, by PD. One EO will unfold one ballot at a time, show this to any witnesses present, and call the marked Candidate, and then the PD number. (Candidate representatives and other witnesses may use the existing tally sheet to perform their own count). The second EO, using the E-Poll Device will click (or touch) the Candidate’s name on one screen (*Count this ballot for Candidate screen, Step 2a*), and then the PD number on a second screen (*Count this ballot in Polling Division screen, 2b*). The E-Poll Device will record the result per Candidate, per PD in the background.

**Step 2a:**

*Count this ballot for Candidate*

Candidate
A
B
C
D
Ballot rejected

Back

Count Complete

**Step 2b:**

*Count this ballot in Polling Division*

Polling Division (PD)	
23	26
24	Blank
25	

Back

For each ballot, once a Candidate and PD are selected, a *Confirmation screen, 2c*, will appear. Candidate representative objections to ballot interpretations are addressed here.

When there is no objection, the EO must click or touch the confirm button to confirm that what is shown as his selection on the right is correct before the E-Poll Device goes back to the Candidate selection screen, 2a, for the next ballot to be counted.

**Step 2c for a ballot counted for a Candidate:**

**Confirm the information entered for this Ballot (record objection if required)**

<b>Back</b>	<b>Objection to Ballot</b>	<b>Candidate</b> A PD 23 <b>Candidate Total</b> 43 <b>Total Ballots</b> <b>234</b>
	<b>Confirm</b>	

In cases where the “Objection to ballot” button is clicked, the E-Poll Device will initiate the “Objection to ballot” function. The EO will be brought to a data entry screen to record the required information. The EO will enter the decision and will be prompted to copy on the ballot the objection number allocated by the system. The next button will bring the EO to screen 2a to tally the next ballot (or finish the count).

Note that when a ballot is rejected, the process will be essentially the same as a ballot counted for a Candidate, and the display, screen 2d, will reflect confirmation for the Rejected Ballot.

**Step 2d for a Rejected Ballot:**

*Confirm information entered for this Ballot (record objection if required)*

Back

Objection to Ballot

**Ballot rejected**  
 PD  
 23  
**Rejected Total**  
 2  
**Total Ballots**  
 234

Confirm

3. **E-Poll Device step/screen 3 – Counts by Candidate:** When counting of all ballots from the ballot box is complete, screen 3 will appear.

**Step 3:**

*Counts by Candidate*

Candidate	Count
A	10
B	90
C	129
D	62
Rejected	8
Lost or Stolen	0

**Total ballots: 299**

**Total Electors**  
**300**

< BACK

NEXT >

If the sum-total by Candidate does not tally to the same number as the expected total number of ballots (based on the number of Electors marked as voted), a warning will be issued to try to determine the discrepancy. EOs will be prompted to recount by hand each pile of ballots already sorted by Candidates in the original count (*Confirm count for Candidate screen, Step 3a*).

**3a. Confirming and Correcting Counts:** The device will display for each Candidate in turn (and for Rejected Ballots), a request for the EO to recount the ballots for the Candidate, and enter the total number for that Candidate. The corrected number of votes will also increase the number of ballots counted in PDs where Blank PD Ballots have been identified for that Candidate. If, when all Candidate recounts are complete, the imbalance has not been resolved, the E-Poll Device will notify the EOs that the final count does not balance and prompt the EOs that the Supervising EO sign-off is required.

**Step 3a:**

**Confirm count for Candidate**

**Please count the number of ballots for the specified Candidate, and enter that value here:**

Candidate	Count
C	130

**Supervising EO Sign-off**

< BACK

NEXT >

- At the Sign-off point, the Supervising EO will decide if the EOs can close the count with the discrepancy by entering their credentials and clicking NEXT, or if another recount is needed at which point the Supervising EO will be prompted to choose to either go back to screen 3a to confirm the count for all Candidate, or to screen 2 to recount all the ballots by Candidate, by PD.
- E-Poll Device step/screen 5: Once counts are complete, and all cross-checks balance or the EOs have been permitted to proceed with an imbalance, the device shall display the Service Point Statement of The Vote. Both EOs will be required to electronically sign

this statement. [For a single PD Polling Place, this step would be skipped because the final step would have the same information].

**Step 5:**

<b>Service Point Statement of The Vote</b>	
<b>Total Issued Ballots</b>	<b>400</b>
<b>Total number of Unused Ballots</b>	<b>98</b>
<b>Total number of Spoiled Ballots</b>	<b>2</b>
<b>Total number of Lost or Stolen Ballots</b>	<b>0</b>
<b>Counts by Candidate, and Rejected Ballots</b>	
Candidate A	10
Candidate B	90
Candidate C	130
Candidate D	62
Rejected Ballots	8
<b>Total Ballots Cast</b>	<b>300</b>
<b>300</b>	
<b>Total account of ballots</b>	<b>400</b>
Each Election Officer, sign to confirm count	<i>Signature of Election Officer A</i>
	<i>Signature of Election Officer B</i>
<input type="button" value=" &lt; BACK"/>	<input type="button" value=" SAVE AND CLOSE"/>

6. E-Poll Device step/screen 6: When all counts within a central Polling Place are complete, the combined totals by Candidate, and all other tallies necessary to produce the Polling Place Statement of The Vote (SOV) will be displayed, and two EOs (typically at least one being a Supervising EO) will electronically sign the SOV. It will not be possible to sign the Statement of The Vote for a Polling Place until all Service Point Statements of the Vote are electronically signed, saved and closed.

The EO will then proceed to *Step 7a* to call in the results to the RO. The *Step 7a* report will be available for review by EOs and Candidate representatives on screen and on paper.



**Close of Polling Place Step 6:**

<b>Polling Place Statement of The Vote</b>	
<b>Total Issued Ballots</b>	<b>1200</b>
<b>Total number of Unused Ballots</b>	<b>200</b>
<b>Total number of Spoiled Ballots</b>	<b>9</b>
<b>Total number of Lost or Stolen Ballots</b>	<b>1</b>
<b>Counts by Candidate, and Rejected Ballots:</b>	
Candidate A	50
Candidate B	300
Candidate C	450
Candidate D	180
Rejected Ballots	10
<b>Total Ballots Cast</b>	<b>990</b>
	<b>210</b>
<b>Total account of ballots</b>	<b>420</b>
Supervising EO	<i>Signature of Supervising EO</i>
Witness Election Officer	<i>Signature of Election Officer E</i>
Each Candidate representative may sign	<i>Signature of Candidate Representative</i>
Election Officers contributing to this statement	[Election Officer A, Election Officer B], [Election Officer C, Election Officer D], [Election Officer E, Election Officer F]
< BACK	SAVE AND REPORT

7. **E-Poll Device step/screen 7 – allocation of Blank PD Ballots to PDs:** When all counts within a Polling Place are complete, Blank PD Ballots, if any, must be dealt with before results can be provided to the RO office. The results must be reported for entry into the EC Event Results System (ERS) by Candidate, by PD. For this purpose, ballots recorded with a blank PD should be allocated into the PD buckets, *in accordance with the number of Electors struck for each PD and for whom the ballot was cast within each service point*. There can be more than one solution meeting these criteria. Therefore, the E-Poll Device must allocate Blank PD Ballots to PDs (*Step 7*) following an EC approved algorithm, and show results to EOs (*Step 7a*) which can then be called in to ROs. The EO in charge must launch the process which must proceed in the background. The starting point for our example is as follows:

**Step 7:**

**Polling Place Results showing ballot results with no PD specified**

<b>16.01. Counts by Candidate, by Polling Division</b>						
Polling Division	023	024	025	026	Blank PD	Totals
Candidate A	14	10	11	11	4	50
Candidate B	94	60	68	70	8	300
Candidate C	140	101	112	90	7	450
Candidate D	65	31	40	40	4	180
Rejected Ballots	9	0	1	0	0	10
<b>Totals</b>	<b>322</b>	<b>202</b>	<b>232</b>	<b>211</b>	<b>23</b>	<b>990</b>
<i>Ballots Cast</i>	326	209	244	211	0	990
<i>Missing Ballots</i>	4	7	12	0	0	23

**Blank PD Ballot Allocation Process**

This example shows the final results for the Service Point. Note that there are no results for Blank PDs, that the results by Candidate are unchanged, that the number of ballots per PD matches the number of Electors struck in each PD, and that the final ratio of votes per Candidate per PD are in proportion to the results before the Blank Ballot PDs were assigned, preserving the distribution of the results by PD.

**Step 7a:**

**Polling Place Results for Reporting to the Returning Office**

<b>16.01. Counts by Candidate, by Polling Division:</b>					
Polling Division:	023	024	025	026	Totals
Candidate A	15	12	12	11	50
Candidate B	95	62	73	70	300
Candidate C	141	103	116	90	450
Candidate D	66	32	42	40	180
Rejected Ballots:	9	0	1	0	10
<b>Totals:</b>	<b>326</b>	<b>209</b>	<b>244</b>	<b>211</b>	<b>990</b>

< BACK

## **ANNEX A – APPENDIX C.4 – Current Election Paper Forms To Be Replaced By The E-Poll Solution**

### **17. CURRENT ELECTION PAPER FORMS TO BE REPLACED BY THE E-POLL SOLUTION.**

The following figures show the existing paper forms which will be replaced by electronic data capture through the E-Poll Device.



EC 50050  
 (11/2014)

## Registration Certificate

Electoral district	Polling division
--------------------	------------------

<b>1. Filled in by:</b> <input type="checkbox"/> Registration Officer <input type="checkbox"/> Poll Clerk					
<b>Elector information (name and current address)</b>					
Family name		Given name(s)		Date of birth YYYY-MM-DD	Gender
No.	Street	Apt.	City, town, village or municipality	Province	Postal code
Mailing address (if different from home address)			Province	Previous home address	Province
City, town, village or municipality		Postal code	City, town, village or municipality	Postal code	

<b>2. To be completed with the Deputy Returning Officer</b>	
<b>Elector declaration</b>	
<input type="checkbox"/> Tick here if you DO NOT want your name added to the National Register of Electors.  I declare that I am a qualified elector under section 3 of the <i>Canada Elections Act</i> as I am a Canadian citizen and 18 years of age or older on election day.  I have not previously requested a ballot in this electoral event.	<p style="text-align: center;"><b>[If the electoral event underway is a by-election]</b></p> I declare that I have been a resident of this electoral district since _____ and will continue to reside in the electoral district until election day.  All statements made on this form are true and correct.  Elector's signature: _____

<b>3. Deputy Returning Officer</b>		
Name (please print)	Signature	Date YYYY-MM-DD

Your personal information contained in section 1 of this *Registration Certificate* is collected under the *Canada Elections Act* (Act) for polling day registration purposes. If you do not complete this section, you will not be able to vote at this time. This form may be reviewed by an independent third party as part of an audit required by the Act.

Your personal information will be included in the National Register of Electors (Register) unless you tick the box in section 2. This information is also collected pursuant to the Act. Personal information contained in the Register, excluding your day and month of birth, is used for preparing lists of electors shared with members of Parliament, political parties and candidates for uses authorized by the Act. Personal information in the Register may also be disclosed to provincial and territorial electoral agencies and municipalities in accordance with information sharing agreements authorized under the Act. Should you not wish to have your personal information disclosed to your provincial or territorial electoral agency or municipality, you may make such a request in writing to Elections Canada.

If you tick the box in section 2, your personal information will not be added to the Register, you will not receive a voter information card during an election period to inform you where to vote, and you will not automatically be included on the lists of electors. You will, however, still be able to vote. To do so, you will have to register again at your local Elections Canada office during the election period or at your polling station on polling day.

You have the right to the protection of your personal information pursuant to the *Privacy Act*. You also have the right to file a complaint with the Privacy Commissioner of Canada regarding Elections Canada's handling of your personal information. Your personal information is retained under Personal Information Bank (PIB) Elections PPU 037. A description of the PIB can be found at [www.infosource.gc.ca](http://www.infosource.gc.ca).

**Figure 20 – Current Registration Certificate**

EC 50051 (11/2014)					
<h2 style="margin: 0;">Correction Certificate</h2>					
Electoral district	Polling division				
<b>1. Filled in by:</b> <input type="checkbox"/> Registration Officer <input type="checkbox"/> Poll Clerk					
<b>Elector information (complete all fields)</b>					
Seq. no.	Family name	Given name(s)	Date of birth YYYY-MM-DD	Gender	
<b>Current home address (complete fields with minor corrections)</b>			<b>Mailing address (if correction required)</b>		
No.	Street	Apt.			
City, town, village or municipality		Postal code	City, town, village or municipality	Province	Postal code
<b>2. To be completed with the Deputy Returning Officer                  Differs from elector information on the list of electors – verbal oath ②</b>					
<b>Tick the correction being made to elector information</b>					
<input type="checkbox"/> Family name (for a legal name change, write the previous name here)		<input type="checkbox"/> Given name		<input type="checkbox"/> Date of birth	
		<input type="checkbox"/> Middle name		<input type="checkbox"/> Current home address	
		<input type="checkbox"/> Gender		<input type="checkbox"/> (minor changes only)	
<b>Verbal oath ②: read aloud and tick the appropriate box (no elector signature required)</b>					
Do you swear or solemnly affirm that:			Please answer:		
<ul style="list-style-type: none"> <li>• you are [say the person's name] and that you reside at [say the address];</li> <li>• you are 18 years of age or older on election day;</li> <li>• you are a Canadian citizen; and</li> <li>• you have not previously requested a ballot in this electoral event?</li> </ul>			<input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>3. To be completed with the Deputy Returning Officer                  Elector crossed off the list of electors as having voted – written oath ④</b>					
<b>Voting status correction</b>					
The list of electors indicates that (tick one of the three boxes):		<input type="checkbox"/> I have voted by special ballot <input type="checkbox"/> I have voted at an advance poll <input type="checkbox"/> I have voted at this polling station			
<b>Written oath ④: elector signature</b>					
I have not previously requested a ballot in this electoral event. The penalty that may be imposed by a court on a person found guilty of requesting a second ballot at an election or of applying for a ballot in a name that is not their own is a fine of up to \$50,000 or a term of imprisonment of up to five years, or both.			All statements made on this form are true and correct. Elector's signature: _____		
<b>4. Deputy Returning Officer</b>					
Name (please print)		Signature		Date YYYY-MM-DD	
<b>5. Returning office staff – follow-up required for voting status corrections</b>					
<input type="checkbox"/> Check information on the <i>Application for Registration and Special Ballot</i> (EC 78530) for local electors; for national electors, check with Elections Canada			Date		
<input type="checkbox"/> Check information on the <i>Record of Votes Cast at the Advance Polling Station</i> (EC 50080)			YYYY-MM-DD		
<input type="checkbox"/> Follow up with Elections Canada if necessary					

Your personal information contained in the *Correction Certificate* is collected under the *Canada Elections Act* (Act) for the purpose of updating your personal information on the list of electors and the National Register of Electors (Register). This form may be reviewed by an independent third party as part of an audit required by the Act.

The updated personal information will be included in the Register. Personal information contained in the Register, excluding your day and month of birth, is used for preparing lists of electors shared with members of Parliament, political parties and candidates for uses authorized by the Act. Personal information in the Register may also be disclosed to provincial and territorial electoral agencies and municipalities in accordance with information sharing agreements authorized under the Act. Should you not wish to have your personal information disclosed to your provincial or territorial electoral agency or municipality, you may make such a request in writing to Elections Canada.

If you do not update your personal information, you may not receive a voter information card during an election period to inform you where to vote, and you may not automatically be included on the lists of electors. You will, however, still be able to vote. To do so, you will have to register again at your local Elections Canada office during the election period or at your polling station on polling day.

You have the right to the protection of your personal information pursuant to the *Privacy Act*. You also have the right to file a complaint with the Privacy Commissioner of Canada regarding Elections Canada's handling of your personal information. Your personal information is retained under Personal Information Bank (PIB) Elections PPU 037. A description of the PIB can be found at [www.infosource.gc.ca](http://www.infosource.gc.ca).

**Figure 21 – Current Correction Certificate / Oath of Voted in Error**



EC 50055  
 (11/2014)

### Oath of Residence Certificate

- On the List: Oath of Residence Certificate only
- Not on the List: Registration Certificate required

Electoral district	Polling division
--------------------	------------------

<b>1. Filled in by:</b> <input type="checkbox"/> Registration Officer <input type="checkbox"/> Poll Clerk			
<b>Elector information (elector requiring an attestation as to residence)</b>			
Seq. no.	Family name	Given name(s)	Street address
<b>Attestor information (elector attesting to the residence of the elector identified above)</b>			
Seq. no.	Family name	Given name(s)	Street address

<b>2. To be completed with the Deputy Returning Officer</b>	
<b>Oral warning</b>	
<p>Every person who is a Canadian citizen and is 18 years of age or older on election day is qualified as an elector. It is an offence for an elector to:</p> <ul style="list-style-type: none"> <li>• vote or attempt to vote at an election knowing that they are not qualified as an elector;</li> <li>• knowingly register to vote at the advance poll or on polling day in a name that is not their own;</li> <li>• knowingly register to vote in a polling division in which they are not ordinarily resident;</li> <li>• register to vote at the advance poll or on polling day in an electoral district knowing that they are not qualified as an elector or entitled to vote in the electoral district;</li> <li>• compel, induce or attempt to compel or induce another person to make a false or misleading statement relating to that other person's qualification as an elector for the purposes of that other person registering and voting at the advance poll or on polling day;</li> <li>• attest to the residence of more than one elector at an election;</li> <li>• attest to another elector's residence when their own residence has been attested to at the same election; or</li> <li>• falsely take an oath under the <i>Canada Elections Act</i>.</li> </ul> <p>When an elector is convicted by a court of an offence listed above, the court may impose a fine of up to \$50,000, imprisonment for a term of not more than five years, or both. The penalty imposed will depend on the offence.</p>	
<b>Elector: written oath ①a</b>	
I am ordinarily resident at the address appearing in section 1. <b>[If the electoral event underway is a by-election]</b> I declare that I have been a resident of this electoral district since _____ and will continue to reside in the electoral district until election day.	As required by sections 143.1, 161.1 and 169.1 of the <i>Canada Elections Act</i> , I have been orally advised of the qualifications of an elector, relevant offences under the Act and the penalties that may be imposed by a court on conviction for these offences.  All statements made on this form are true and correct. Elector's signature: _____
<b>Attestor: written oath ①b</b>	
I declare that: <ul style="list-style-type: none"> <li>• I know the elector personally;</li> <li>• the elector resides at the address appearing in section 1;</li> <li>• I know the elector resides in my polling division;</li> <li>• I have not attested to the residence of another elector at this election; and</li> <li>• my own residence has not been attested to at this election.</li> </ul>	As required by sections 143.1, 161.1 and 169.1 of the <i>Canada Elections Act</i> , I have been orally advised of relevant offences under the Act and the penalties that may be imposed by a court on conviction for these offences.  Attestor's signature: _____

<b>3. Deputy Returning Officer</b>		
Name (please print)	Signature	Date YYYY-MM-DD

Your personal information contained in the *Oath of Residence Certificate* is collected under the *Canada Elections Act* for electoral purposes. The form must be completed in order to allow an elector without proof of residence to vote in a federal election. This form may be reviewed by an independent third party as part of an audit required by the *Canada Elections Act*.

You have the right to the protection of your personal information pursuant to the *Privacy Act*. You also have the right to file a complaint with the Privacy Commissioner of Canada regarding Elections Canada's handling of your personal information. Your personal information is retained under Personal Information Bank (PIB) Elections PPU 037. A description of the PIB can be found at [www.infosource.gc.ca](http://www.infosource.gc.ca).

Figure 22 – Current Oath of Residence Certificate

		<h2 style="margin: 0;">TRANSFER CERTIFICATE CERTIFICAT DE TRANSFERT</h2>		EC 10160 (03/00)
ELECTORAL DISTRICT / CIRCONSCRIPTION		CERTIFICATE NO. N° DU CERTIFICAT		POLLING STATION BUREAU DE SCRUTIN
		FROM / DE NO. N°	TO / A NO. N°	
Issued to / Délivré à				
NAME / NOM		ADDRESS / ADRESSE		
MUNICIPALITY / MUNICIPALITÉ		POSTAL CODE / CODE POSTAL		
<b>Please check appropriate box / Veuillez cocher la case appropriée</b>				
<b>ELECTION / REFERENDUM OFFICER</b> A transfer certificate must be issued to any election or referendum officer appointed after the holding of the advance polls who will be working at a polling station other than the polling station established for the polling division in which the officer is registered on the list of electors.		<b>FONCTIONNAIRE ÉLECTORAL / RÉFÉRENDIAIRE</b> Un certificat de transfert doit être délivré à chaque fonctionnaire électoral ou référendaire nommé après la tenue du vote par anticipation et qui travaillera à un bureau de scrutin autre que celui établi pour la section de vote dans laquelle le fonctionnaire est inscrit sur la liste électorale.		
CENTRAL POLL SUPERVISOR <input type="checkbox"/>		SUPERVISEUR DE CENTRE DE SCRUTIN <input type="checkbox"/>		
DEPUTY RETURNING OFFICER <input type="checkbox"/>		SCRUTEUR <input type="checkbox"/>		
POLL CLERK <input type="checkbox"/>		GREFFIER DU SCRUTIN <input type="checkbox"/>		
REGISTRATION OFFICER <input type="checkbox"/>		AGENT D'INSCRIPTION <input type="checkbox"/>		
INFORMATION OFFICER <input type="checkbox"/>		PRÉPOSÉ À L'INFORMATION <input type="checkbox"/>		
PERSON RESPONSIBLE FOR MAINTAINING ORDER <input type="checkbox"/>		PERSONNE RESPONSABLE DU MAINTIEN DE L'ORDRE <input type="checkbox"/>		
<b>OR / OU</b>				
<b>CANDIDATE</b> A transfer certificate may be issued to a candidate whose name appears on one of the lists of electors within the electoral district in which the candidate has filed his nomination paper. The certificate allows the candidate to vote at another polling station in the same electoral district.		<b>CANDIDAT</b> Un certificat de transfert peut être délivré à un candidat qui est inscrit sur une des listes électorales de la circonscription où il a présenté sa candidature. Le certificat permet au candidat de voter à un autre bureau de scrutin de la même circonscription.		
<b>OR / OU</b>				
<b>ELECTOR WITH A PHYSICAL DISABILITY</b> A transfer certificate to vote at a polling station with level access in the same electoral district may be issued to an elector with a physical disability, if the elector's polling station is without level access.		<b>ÉLECTEUR AYANT UNE LIMITATION FONCTIONNELLE</b> Un certificat de transfert peut être délivré à un électeur ayant une limitation fonctionnelle si son bureau de scrutin n'est pas accessible de plain-pied, de façon à ce qu'il puisse voter à un bureau de scrutin accessible de plain-pied à l'intérieur de la même circonscription.		
<b>CERTIFICATE</b>		<b>CERTIFICAT</b>		
I hereby certify that the above name appears on the list of electors for the polling division from which it has now been transferred and that the person so named may now vote at the polling station indicated above.		Je, soussigné, atteste que la personne susmentionnée apparaît sur la liste électorale de la section de vote d'où elle a obtenu un transfert, et qu'elle est autorisée à voter au bureau indiqué plus haut.		
_____ DATE		_____ RETURNING OFFICER OR ASSISTANT RETURNING OFFICER DIRECTEUR DU SCRUTIN OU DIRECTEUR ADJOINT DU SCRUTIN		
This certificate must be given to the deputy returning officer at the poll where the elector will be voting.		Ce certificat doit être remis au scrutateur du bureau de scrutin où l'électeur votera.		
<b>DISTRIBUTION ►</b>				
White: Person transferred Blanche: Personne nommée dans le certificat		Yellow: DRQ of original polling station Jaune: Scrutateur de la section de vote originale		Pink: Returning Officer Rose: Directeur du scrutin

Figure 23 – Current Transfer Certificate



EC 50080  
(11/2014)

**Record of Votes Cast at the Advance Polling Station / Registre du vote au bureau de vote par anticipation**

Elector information / Infos sur l'électeur				Oath information / Serment										Voted / A voté				
Entry No.	Name and street address / Nom et adresse municipale	Polling division / Section de vote	On list / Sequence no. / Sur la liste / N° de séquence	Not on list / Registration certificate / Absent de la liste / Certificat de non-inscription	Signature - Elector / Électeur	Residence / Résidence										Ballot placed in box / Bulletin de vote déposé dans l'urne		
						1	2	3	4	5	6	7	8	9	10			
0	Lawson, Robert 1435 Fern Glen	38		<input checked="" type="checkbox"/>	X Robert Lawson	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PO SV	Sec. no. / N° de séq.	<input checked="" type="checkbox"/>
0	Smith, Mary J. 23, rue Principale	27	236	<input type="checkbox"/>	X Mary Smith	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		27 236	<input checked="" type="checkbox"/>
				<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>
				<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>
				<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>
				<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>
				<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>
				<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>
				<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>
				<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>
				<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>
Total number of registrations (not on list) / Nombre total d'inscriptions (électeurs absents de la liste)																		

Page  Start each day with a new page: page 1, entry 1. / Commencez à remplir une nouvelle page chaque jour: page 1, n° 1. Poursuivez la numérotation d'une page à l'autre.

Deputy Returning Officer / Signature du scrutateur      Poll Clerk / Signature du greffier du scrutin

Figure 24 – Current Record of Votes Cast





**Statement of the electors who voted on polling day**  
**Relevé des électeurs qui ont voté le jour du scrutin**

EC 50111  
 (12/07)

Electoral District / Circonscription	Polling station No.	N° du bureau de scrutin
Election date / Date de l'élection		

		Circle the sequence number of the elector who has voted										Encercler le numéro de séquence de l'électeur qui a voté									
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>1</b> ~ <b>100</b>		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
		41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
		61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
		81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
<b>101</b> ~ <b>200</b>		101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
		121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140
		141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160
		161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180
<b>201</b> ~ <b>300</b>		181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200
		201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220
		221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240
		241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260
<b>301</b> ~ <b>400</b>		261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280
		281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300
		301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320
		321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340
<b>401</b> ~ <b>500</b>		341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360
		361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380
		381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400
		401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420
<b>501</b> ~ <b>600</b>		421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440
		441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460
		461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480
		481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500
<b>601</b> ~ <b>700</b>		501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520
		521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540
		541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560
		561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580
<b>701</b> ~ <b>800</b>		581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600
		601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620
		621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640
		641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660
<b>701</b> +		661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680
		681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700

If the elector's sequence number is higher than 700, please write it in one of the boxes below. / Si le numéro de séquence de l'électeur est plus élevé que 700, veuillez l'inscrire dans une des cases ci-dessous.

<b>701</b> +																							

	De :	À :
_____	From:	To:
Poll clerk's signature / Signature du greffier du scrutin	Time interval / Période de temps	

HAND THIS STATEMENT TO THE INFORMATION OFFICER EVERY 30 MINUTES / REMETTRE CE RELEVÉ AU PRÉPOSÉ À L'INFORMATION À TOUTES LES 30 MINUTES

**Figure 26 – Current Statement of Electors who Voted on Polling Day**

On the List

**Record of Electors on the List Requiring an Oath**

Elector information		Oath information			
	Name and address	Sequence no. (if this is a merged polling station, add the polling division no.)	Refused oath	① Qualification to vote	② When ID matches the list
0	Lawson, Robert Fern Glen	38	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
0	Howard, John 14 Primrose Ave.	52, PD 7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0	Nault, Jérôme 440, rue Visitation	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0	Smith, Mary 23 Main St.	243	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4

**Figure 27 –Current Poll Book – Electors on List**

3 Differs from list	4 Crossed off as voted	5 Person helping an elector	6 Residence		PD	Seq. no
			6a Elector whose residence was attested to	6b Attesting elector Name, address, polling division and sequence no.		
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Jean Martin 440, rue Visitation	27	315
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

On the List

5

Figure 28 – Current Poll Book – Electors on List (facing page)

**Record of Electors Not on the List Voting by Certificate**  
 (Registration, Transfer or Transfer – Moved Poll)

	Elector information		Certificate	
	Name and address	Voted	Registration	Transfer; certificate number
0	<i>Walker, Francis 606 Laurier Ave. West</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
0	<i>Giroux, Berthe 220, rue Montcalm</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
0	<i>Brault, Arthur Pointe-Fortune</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15
1		<input type="checkbox"/>	<input type="checkbox"/>	
2		<input type="checkbox"/>	<input type="checkbox"/>	
3		<input type="checkbox"/>	<input type="checkbox"/>	
4		<input type="checkbox"/>	<input type="checkbox"/>	
5		<input type="checkbox"/>	<input type="checkbox"/>	
6		<input type="checkbox"/>	<input type="checkbox"/>	
7		<input type="checkbox"/>	<input type="checkbox"/>	
8		<input type="checkbox"/>	<input type="checkbox"/>	
9		<input type="checkbox"/>	<input type="checkbox"/>	
10		<input type="checkbox"/>	<input type="checkbox"/>	
11		<input type="checkbox"/>	<input type="checkbox"/>	
12		<input type="checkbox"/>	<input type="checkbox"/>	

Not on the List

12

**Figure 29 – Current Poll Book – Electors not on List**

Oath information					
① Qualification to vote	⑤ Person helping an elector	⑥ Residence			
		⑥a Elector whose residence was attested to	⑥b Attesting elector Name, address, polling division and sequence no.		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PD	Seq. no
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	27	236
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Not on the List

**Figure 30 – Current Poll Book – Electors not on List (facing page)**

**Notable events that happened at this polling station**

Item no.	Name and address of people involved	What happened?	Did the Deputy Returning Officer or Central Poll Supervisor call the Returning Officer? (yes/no)	Did the Returning Officer ask them to complete an Incident Report? (yes/no)
1				
2				
3				
4				
5				


Notable Events

**Figure 31 – Current Poll Book – Notable Events**



**After the polls close: what to do**

In this table, write the number of electors who voted:

1. On the <i>List of Electors</i> , count the number of ticks in the Voted column. Write the number here:	
2. On pages 4–9, Record of Electors <b>on the List</b> Requiring an Oath, count the number of electors who took Oath  . Write the number here:	
3. On pages 12–27, Record of Electors <b>Not on the List</b> Voting by Certificate (Registration, Transfer or Transfer – Moved Poll), count the number of electors listed. Write the number here:	
4. Add up the numbers in boxes 1, 2 and 3 above. Total number of electors who voted at this polling station:	

Copy this number to **Box 1** on the *Statement of the Vote* EC 50100

**Note:** The total in Box 4 should match the total number of votes cast, which you will record on the *Statement of the Vote* EC 50100 after the ballots are counted. If the numbers do not match, write a note at the bottom of the *Statement of the Vote* to point out the difference.

**Record any ballot objections**

- If there are any ballot objections from the candidates or candidates' representatives, write about them on page 35.

**When the counting is finished**

- On page 37 of this book, sign your name. Ask the Deputy Returning Officer to sign too.
- Place this *Poll Book* in the large yellow plastic bag. (If this is a mobile poll, place it in the large purple plastic bag.)

Close

**Figure 32 – Current Poll Book – Elector Count**

**Objections to ballots at the time of the count**

Objection no.	Name of person making objection	Reason	Ballot accepted by Deputy Returning Officer (✓)	Ballot rejected by Deputy Returning Officer (✓)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Ballot Objections  
35

EC 50060 Poll Book ERI new.indd 35

10/9/14 1:18 PM

**Figure 33 – Current Poll Book – Objections to Ballots**

**Poll Clerk and Deputy Returning Officer – sign here  
after counting the ballots on election night**

To the best of my knowledge and belief, this *Poll Book* has been kept correctly and contains a true and exact record of the taking of the votes at this polling station.

\_\_\_\_\_  
Deputy Returning Officer – signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Poll Clerk – signature

\_\_\_\_\_  
Date

***Thank you for helping make democracy work!***

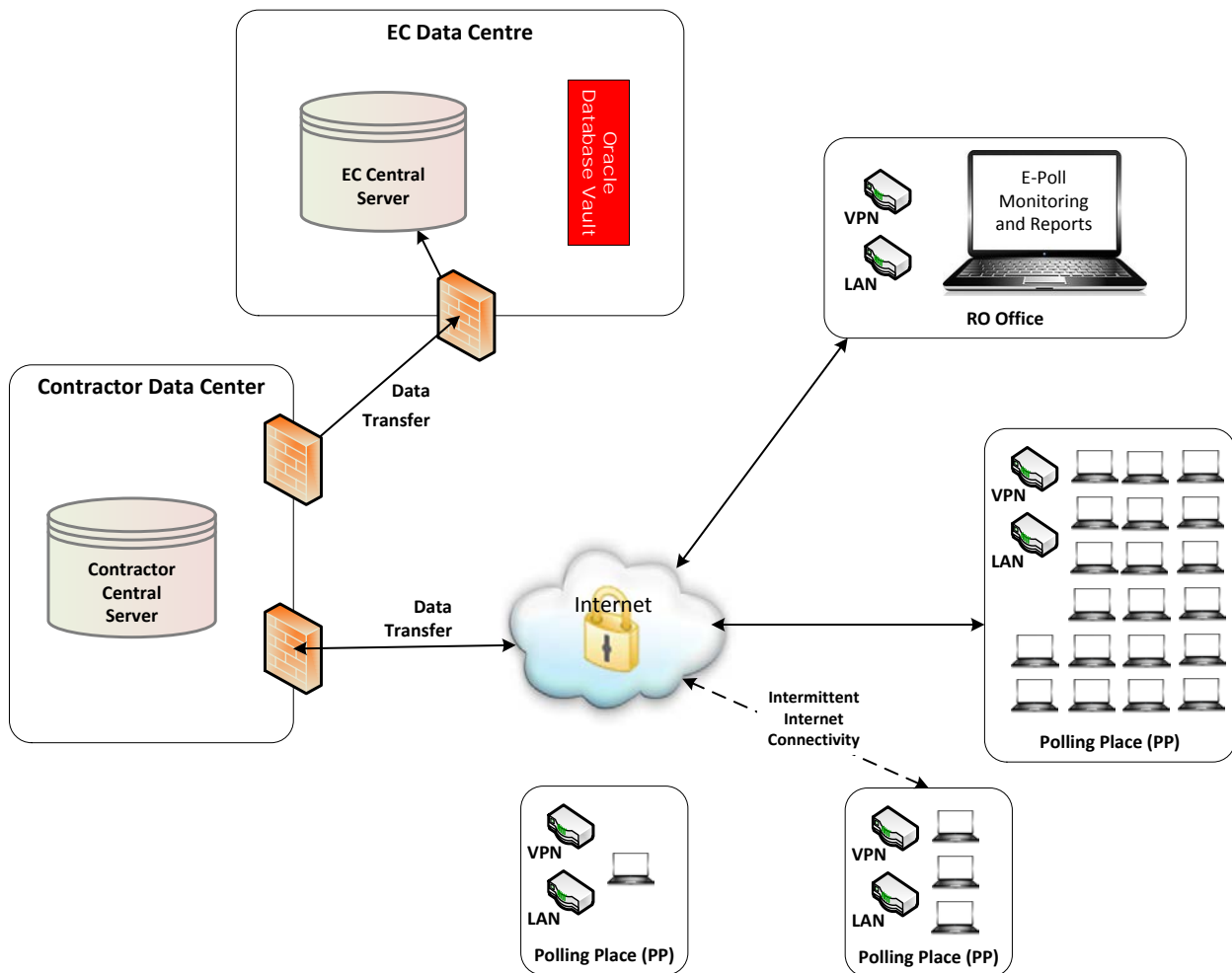
37

**Figure 34 – Current Poll Book Signatures**

## ANNEX A - APPENDIX D – E-POLL SOLUTION TECHNICAL VISION

### 18. E-POLL SOLUTION OVERVIEW

The Contractor must provide an integrated end-to-end turnkey E-Poll Solution that includes software, hardware, deployment, and product lifecycle support as detailed in ANNEX A - APPENDIX I – SERVICE MANAGEMENT.



**Figure 35: E-Poll Solution Polling Day Operation Overview**

The E-Poll Solution encompasses the following components and services:

- Polling Place software, event data, hardware, and networking to meet the business requirements for operating technology at the Polling Place regardless of whether or not there is connectivity from the Polling Place to the Contractor Central Server;

- Returning Office software, hardware, and networking to meet the business requirements for preparing and recovering technology used at the Polling Places, as necessary;
- Contractor Central Server software, hardware, and networking to support integration with the EC- data centre and support RO office and Polling Place operations; and
- Configuration, integration, validation, deployment, support, security, performance, maintenance, and other related services to support the E-Poll Solution as detailed in ANNEX A - APPENDIX I – SERVICE MANAGEMENT.

NOTE: Diagrams for EC-to-Contractor integration are available in ANNEX A – APPENDIX E.7 – Data Integration – Web Services.

### **18.01. Solution Scope**

The Contractor is responsible for procurement for all tiers and components of the E-Poll Solution for all phases in accordance with 8.09.01 Product Development Lifecycle (PDLC).

### **18.02. Solution Components**

The E-Poll Solution must use industry standard, stable, supportable, and proven technology.

### **18.03. Interoperability and Data Exchange**

The Contractor E-Poll Solution architecture must be based on communication between authorized E-Poll Solution components in the RO office, E-Poll devices, the Contractor Central Server, and EC data centre and systems. Data must be exclusively communicated between the Contractor Central Server and EC data centre in a manner that complies with the data dictionaries and validation rules specified in this document. Any exceptions or change of any nature in content, format, or communication details must be pre-approved in writing by EC.

Data and technical services provided by the Contractor E-Poll Solution must support the business processes, data, and integration specifications outlined by EC. EC retains responsibility for defining data and data integration specifications where the Contractor E-Poll Solution and EC data centre communicate and share data. EC will also specify testing, scalability, and performance requirements.

The Contractor E-Poll Devices and supporting RO office components will communicate with the Contractor Central Server, which will communicate with the EC data centre.

This separation streamlines the data integration process, protects EC data centre assets from direct access from E-Poll Devices, and confines the responsibility of distribution and consolidation of poll data to the Contractor E-Poll Solution. The Contractor E-Poll Solution must

be able to upload Polling Place E-Poll data to the Contractor Central Server as needed, and if necessary, be able to handle the upload of all data at the end of every Polling Day.

The Contractor E-Poll Solution must provide the ability to exchange data with the EC Central Data Store using the integration points defined in this document. Any exception must be pre-authorized in writing by EC.

The final repository for all Poll Book entries, including all records pertaining to Oaths, will be the Contractor's Central Server which will remain available to the Chief Electoral Officer and his staff for ten years following an Electoral Event. The Contractor must provide EC with archived data and instructions to enable EC to access this information when needed at any time without the Contractor's assistance.

#### **18.04. Supplementary Information**

EC may have provided some information in the EC-Contractor interface which is not required in support of the requirements as defined. The E-Poll Solution should propagate all information provided via the interface to E-Poll Devices, even if it is not currently referenced in the requirements.

#### **18.05. EC-Contractor Integration and Testing**

EC and the Contractor will coordinate the work described in ANNEX A – APPENDIX I.1 – Product Development Lifecycle (PDLC) Services for making sure that all integration parts fully work as intended. These include all efforts related to integration analysis and discussions, design and configuration, development and debugging, security, as well as quality assurance and control. Quality control may be in the form of functional testing, performance testing, load testing, security tests, integrated testing, and simulations with field staff. EC performs a series of Electoral Event readiness integration tests and simulations prior to each Electoral Event in which the Contractor must participate.

EC and the Contractor will also coordinate the designing and implementing standard operating and change management procedures for all integration points as described in ANNEX A – APPENDIX I.1 – Product Development Lifecycle (PDLC) Services. While this is a coordinated effort, EC remains the final approving authority for all technical and operational aspects of this integration and the contractor remains responsible for the performance of all requirements outlined in the SOW.

## **18.06. Principles of Effective Information Management**

Information Management is an integral part of the Contractor's responsibilities. The Contractor must apply the basic principles of effective information management to:

1. avoid unnecessary collection of duplicate information, reconcile inconsistencies and ensure data quality;
2. ensure that information is complete, accurate, current, relevant, and understandable;
3. prevent unauthorized access to information; and
4. safeguard information against loss, theft, damage and destruction.

## **18.07. Information Management**

Specifications for a model interface between the Contractor Central Server and EC data centre are provided in ANNEX A – APPENDIX E.7 – Data Integration – Web Services. EC will consider functionally equivalent alternative proposals for this portion of the interface.

Data dictionaries and data validation of the Contractor Central Server are provided in ANNEX A – APPENDIX E.8 – Data Integration - Validation Rules.

Data communication across E-Poll Solution components must comply with the timings specified in ANNEX A – APPENDIX E.4 – The Electoral Calendar - Key Dates and E-Poll Solution Activities and ANNEX A – APPENDIX E.5 – Data Integration Calendar. The Contractor Central Server must process data as soon as it is received and make it available as soon as possible, but at maximum within the constraints defined in the Data Integration Calendar.

EC may amend data dictionaries, specifications and timeframes for new or updated data exchange, through a Task Authorization.

The E-Poll Solution must ensure availability of all data (without loss of data) collected by the Contractor E-Poll Solution in accordance with E-Poll Solution requirements by employing sufficient data redundancy and other methods to assure backup and recovery of data for all E-Poll Solution components in the specified timeframes for each component.

## **18.08. User Access Management (UAM)**

The E-Poll Solution must:

1. provide the capability to directly transfer or upload ECHQ and RO staff credentials for authorized users of the Contractor Central Server and any other applicable components of E-Poll Solution;

2. provide the capability to define ECHQ and RO staff credentials for authorized users of the Contractor Central Server and any other applicable components of E-Poll Solution;
3. provide the capability to directly transfer or upload EO credentials for E-Poll Devices to the Contractor Central Server;
4. provide the means to capture EO credentials at the time they complete their training;
5. provide an expedient way for the AC(s) to distribute the EO credentials to all E-Poll Devices for the Electoral District; and
6. accommodate last minute additions and changes to user credentials up to and including on polling day, where E-Poll devices may be disconnected from the Contractor Central Server.

**18.09. Networking**

The Contractor E-Poll Solution must provide a compliant secure, high-speed connection between the Contractor Central Server and EC data centre.

**18.10. Usability and Accessibility**

The User Interface must be intuitive, user-friendly and accessible. The minimum accessibility requirements for all E-Poll Solution components are Web Content Accessibility Guidelines (WCAG) 2.0 Level AA. However, the Contractor E-Poll Solution graphical User Interfaces should also follow industry standards, guidelines and best practices for usability and accessibility. The following industry guidelines are provided for reference.

Application Type	Design Guidelines
Web applications that are public-facing or have a wide range of users	Web Content Accessibility Guidelines (WCAG) 2.0 <a href="https://www.w3.org/TR/WCAG20/">https://www.w3.org/TR/WCAG20/</a> TBS Standards on Web Accessibility <a href="http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=23601">http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=23601</a>
Microsoft Windows applications	Design applications for the Windows desktop <a href="https://developer.microsoft.com/en-us/windows/desktop/design">https://developer.microsoft.com/en-us/windows/desktop/design</a>
Apple iOS applications	iOS Human Interface Guidelines <a href="https://developer.apple.com/ios/human-interface-guidelines/resources/">https://developer.apple.com/ios/human-interface-guidelines/resources/</a>



### **18.11. Maintenance**

The Contractor must sustain or restore standard operational conditions for the E-Poll Solution through a range of planned and unplanned maintenance. EC classifies maintenance activities in the following categories:

1. Corrective Maintenance
2. Preventive Maintenance
3. Adaptive Maintenance
4. Perfective Maintenance

The Contractor is responsible for providing diagnostic tools to monitor the operation of the overall Contractor E-Poll Solution, for monitoring the E-Poll Solution, and for ensuring the E-Poll Solution performs according to requirements at all times during the product lifecycle which includes: design, development, implementation, deployments, operation, and decommissioning. The Contractor is responsible for coordination or execution of planned and ad hoc processes and procedures used in the operational and performance monitoring, management, update, and tuning of the E-Poll Solution and environment.

## ANNEX A - APPENDIX E – STATEMENT OF REQUIREMENTS

### 19. STATEMENT OF REQUIREMENT (SOR)

#### 19.01. E-Poll Solution Requirements

Some Essential Requirements do not need to be supported for the next 43<sup>rd</sup> General Election in 2019. These functions are identifiable by a delivery milestone after the first General Election. However, it is highly desirable that these requirements be met sooner if possible.

#### 19.02. Table of Requirements structure

Column Definition in the Statement of Requirements:

<b>Filter and Order Columns</b>	<b>Req ID</b>	A unique identifier for each requirement (Req) for reference.	
	<b>Part</b>	The "Part" column can be used to group business requirements related to EO operations together, in particular to group happy path with alternative path requirements in a transaction based order.	
	<b>Type</b>	The "Type" column provides a useful way to filter requirements to meaningful subsets at a finer level than "Group".	
<b>Requirement Columns</b>	<b>Req Scope</b>	The "Req Scope" Fields define the general applicability of these requirements to various component parts of the E-Poll Solution. For example, some requirements only apply to devices used at Polling Places, some to all technical parts, some to services only, and some to all solution components. Where a "Y" is indicated, the requirement is applicable to:	
		<b>PP</b>	Components and functions used by EOs and Supervising EOs at the Polling Place.
		<b>RO</b>	Components and functions used by ROs and ACs at the Offices of ROs and AAROs. Note that AC stands for an automation coordinator role in the office, and where RO office is described/used, the same requirement applies for the office of the AARO
		<b>CCS</b>	Components and functions of the Contractor Central Server used by ECHQ, ROs, AAROs and ACs.
		<b>IS</b>	Integrated Services and components such as documentation which support the E-Poll solution.
	<b>Requirement</b>	The requirement (Req).	

<b>Importance</b>	<p>The relative importance of the requirement. An Essential requirement must be met by the Contractor during the course of the Contract. High, Medium and Low requirements must only be met during the term of the Contract if they were included in the Contractor's proposal. All requirements must be met by the Contractor's solution in accordance with ANNEX A - APPENDIX F – CONTRACTOR PLAN AND DELIVERABLE SCHEDULE.</p>																								
<b>Release and Milestone</b>	<p>The latest acceptable timeframe by which this requirement can be met. This is not a suggested date, rather a constraining date related to the Contract Effective Date, the E-Poll Solution Release or Electoral Event, and the activity within these Releases, such as for UAT, for Simulation or Deployment. The Contractor's expected contractual delivery date will be the date identified in the approved Contractor's Plan per ANNEX A - APPENDIX F – CONTRACTOR PLAN AND DELIVERABLE SCHEDULE which must be no later than this deadline.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Event/Release</th> <th>Event</th> </tr> </thead> <tbody> <tr> <td>C</td> <td>Contract</td> </tr> <tr> <td>B / R2</td> <td>By-election (2018)</td> </tr> <tr> <td>G / R3</td> <td>First GE - 2019</td> </tr> <tr> <td>R4</td> <td>First Event after 1st GE (2020)</td> </tr> </tbody> </table> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Activity</th> <th>Activity</th> </tr> </thead> <tbody> <tr> <td>E</td> <td>Entire Contract, starting with Effective Date</td> </tr> <tr> <td>U</td> <td>UAT</td> </tr> <tr> <td>I</td> <td>Integration Test</td> </tr> <tr> <td>S</td> <td>Simulation</td> </tr> <tr> <td>A</td> <td>HQ Admin (Feb 2019)</td> </tr> <tr> <td>D</td> <td>Deployment</td> </tr> </tbody> </table> <p>For example B/R2 – U means that the requirement must be completed for UAT for R2, which corresponds to April 2018 in the 30.01 - Initial System Release Schedule .</p>	Event/Release	Event	C	Contract	B / R2	By-election (2018)	G / R3	First GE - 2019	R4	First Event after 1st GE (2020)	Activity	Activity	E	Entire Contract, starting with Effective Date	U	UAT	I	Integration Test	S	Simulation	A	HQ Admin (Feb 2019)	D	Deployment
Event/Release	Event																								
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U	UAT																								
I	Integration Test																								
S	Simulation																								
A	HQ Admin (Feb 2019)																								
D	Deployment																								

**19.03. Requirements**

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
		<b>Heading</b>					<b>OFFICIAL LANGUAGES</b>		
<b>1.</b>		<b>Official Languages</b>	Y	Y	Y	Y	The E-Poll Solution must provide the ability for users to work in the Official Language of their choice (English or French) such that all labels and messages, including error messages appear in the chosen language of the user.	Essential	B / R2 - U
<b>1.a</b>		<b>Official Languages</b>	Y	Y	Y	Y	The E-Poll Solution should provide the ability for users to toggle between Official Language of their choice (English or French) such that all labels and messages, including error and barrier messages appear in the chosen language of the user.	High	G / R3 - U
<b>2.</b>		<b>Official Languages</b>	Y				The E-Poll Device must, for any information which must be shown to the Elector, provide the information in both Official Languages (English and French).	Essential	B / R2 - U
<b>2.a</b>		<b>Official Languages</b>	Y				The E-Poll Device must, for any information which must be shown to the Elector, provide the ability for the Elector to toggle between Official Languages (English or French) displaying one or the other.	High	G / R3 - U
<b>3.</b>		<b>Official Languages</b>	Y				The E-Poll Device must, whenever information is shown in both languages at the same time, if the province of the Polling Place address is Quebec, show the French language before the English language, otherwise, show the English language before the French language.	Essential	B / R2 - U
<b>4.</b>		<b>Official Languages</b>	Y	Y	Y		The E-Poll Solution must support display, search and capture of the ISO 8859-1 character set (specifically Canadian French characters).	Essential	B / R2 - U
<b>5.</b>		<b>Official Languages</b>	Y	Y	Y		The E-Poll Solution must support a Canadian bilingual keyboard.	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
		<b>Heading</b>					<b>USABILITY</b>		
<b>6.</b>		<b>Usability</b>	Y				The E-Poll Device must use best practice process wizard techniques to guide EOs through the various voting process scenarios, ensuring that compulsory information is completed before the EO can proceed to the next step.	Essential	B / R2 - U
<b>7.</b>		<b>Usability</b>	Y				The E-Poll Device must be operable by an EO following a maximum of two hours of training.	Essential	G / R3 - U
<b>8.</b>		<b>Usability</b>	Y				The E-Poll Device must provide a highly accessible User Interface, with the minimum default display size for text being 6mm (¼") in height when measured on the display used by the E-Poll Device.	Essential	B / R2 - U
<b>8.a</b>		<b>Usability</b>	Y				The E-Poll Device should provide the ability for the EO to adjust the text size font displayed on the E-Poll Device.	Med	G / R3 - U
<b>9.</b>		<b>Usability</b>	Y				The E-Poll Device should provide EOs with ability to configure the brightness of the device's screen.	Med	G / R3 - U
<b>10.</b>		<b>Usability</b>	Y				The E-Poll Device should provide EOs with ability to configure the level of sound (volume) on any of the E-Poll Solution components except the device used to scan VICs.	Med	G / R3 - U
<b>11.</b>		<b>Usability</b>	Y				The E-Poll Device should provide an on-screen keyboard for numerical or special data capture purposes, when the physical keyboard does not have separate keys for these characters.	Med	G / R3 - U
<b>12.</b>		<b>Usability</b>	Y				The E-Poll Device must, at any time while processing an Elector, enable the EO to cancel the current step using a "back" or "previous" function, and return to the previous context without losing the work done to that point.	Essential	B / R2 - U
<b>12.a</b>		<b>Usability</b>	Y				The E-Poll Device should, at any time while processing an Elector, enable the EO to cancel every step in order since the beginning of the Elector transaction using a "back" or	High	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							"previous" function, and return to every previous context without losing the work done to that point.		
12.b		Usability	Y				The E-Poll Device should, at any time while processing an Elector up to the point that an Elector is Struck, enable the EO to cancel every step since the beginning of the Elector transaction using a "restart" function, and return to the search Elector function.	Med	B / R2 - U
13.		Usability	Y				The E-Poll Device must provide the ability for an EO to reverse a transaction performed by the EO on the E-Poll Device for the last Elector Marked as Voted (ballot returned).	Essential	B / R2 - U
13.a		Usability	Y				The E-Poll Device must, whenever an Elector Strike or Elector Marked as Voted transaction is reversed, prompt the EO to create a Poll Book entry (per ANNEX A – APPENDIX E.2 –Specification for Poll Book entries) explaining the reversal.	Essential	B / R2 - U
13.b		Usability	Y				The E-Poll Device must, after an Elector is Struck, prohibit any changes or reversal to transactions performed pertaining to all Electors prior to the one just Struck.	Essential	B / R2 - U
14.		Usability	Y		Y		The E-Poll Solution must, at any time the component (E-Poll Device or CCS) is performing an operation which takes longer than one second, provide a visual cue that the component is operating (e.g. spinning cursor, status bar, etc.).	Essential	G / R3 - I
15.		Usability	Y				The E-Poll Device should, whenever a VIC is scanned, issue an audible 'beep' at a sound level comparable to normal conversational levels (between 55 and 60 db).	High	G / R3 - U
15.a		Usability	Y				The E-Poll Device should not permit EOs to mute the scanning beep of the device used to scan VICs.	High	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
16.		Usability	Y				The E-Poll Device should display the current local time based on the Polling Place time zone.	Low	B / R2 - A
17.		Usability	Y				The E-Poll Device should provide a stand which allows swivel/angle of the device to present to the Elector or to make it easier to use for the EO. (e.g. a stand which rotates 360 degrees on a horizontal plane to face either the EO or the Elector, and also has a 90 degree vertical sweep to angle the display toward the face of the current user).	High	G / R3 - S
18.		Usability	Y				The E-Poll Device should use a handheld bar code reader or, if using a camera as the device which reads barcodes, provide a holder to assist in scanning of barcodes on VICs and other barcoded documents.	High	B / R2 - I
19.		Usability	Y				The E-Poll Device Kit must provide a carrying case for each E-Poll Device and all necessary supporting Polling Place E-Poll Solution Components which must enable EOs to securely transport the E-Poll Solution components to and from Polling Places.	Essential	G / R3 - S
19.a		Usability	Y				The E-Poll Device Kit carrying case must not exceed 40 Litres (2440 cubic inches) and no single dimension exceeding 50 cm (20 inches).	Essential	G / R3 - S
19.b		Usability	Y				The E-Poll Device Kit carrying case must provide the necessary protection to ship the package by ground or air without damage under normal handling conditions.	Essential	G / R3 - S
19.c		Usability	Y				The E-Poll Device Kit carrying case must have a carrying handle for transporting the unit using only one hand.	Essential	G / R3 - S
19.d		Usability	Y				The E-Poll Device Kit carrying case may have a sling or strap for carrying on the shoulder.	Med	G / R3 - S
19.e		Usability	Y				The E-Poll Device Kit carrying case for each E-Poll Device with all Polling Place E-Poll Solution components inside,	Essential	G / R3 - S

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							must not exceed 9kg (19.8 pounds).		
19.f		Usability	Y				The E-Poll Device Kit carrying case may have wheels for easier transportation by an EO.	Med	G / R3 - S
20.		Usability	Y				The E-Poll Device must be deployable from the E-Poll Device Kit carrying case, ready for operation by an EO, within a maximum of 15 minutes.	Essential	G / R3 - U
21.		Usability	Y				The E-Poll Device must be operable using one outlet (plug) on a standard 15A 100-120V circuit, or less.	Essential	B / R2 - U
22.		Usability	Y				The E-Poll Device must be operable from battery for a minimum of 14 hours, with all necessary batteries being included in the carrying case (in this duration, up to two disruptions, each of 5 minutes or less, for replacing batteries, is acceptable).	Essential	B / R2 - U
22.a		Usability	Y				The E-Poll Device replacement batteries must be rechargeable separate from the E-Poll Device (for recharging while the E-Poll Device is in use with another battery), with any separate recharging station or power cords being included in the carrying case.	Essential	B / R2 - U
23.		Usability	Y				The E-Poll Devices must be simple appliances that are turned on and operate as required with no requirement for on-site, or over-the-wire technical support. (The Contractor is not required to provide physical assistance to any site other than EC, ORO, AARO offices, and the site(s) of the Contractor Central Server(s)).	Essential	B / R2 - U



Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
24.		Usability	Y	Y	Y	Y	The Contractor must deliver intuitive, user-centric systems and services that adopt and leverage best practices in solution design, such as but not limited to a system that must: <ul style="list-style-type: none"> <li>a. Ensure consistent and standardized User Interface in the E-Poll Solution.</li> <li>b. Guide the users by providing context sensitive help messages and visual process maps provided by EC, when requested.</li> <li>c. Design an Intuitive User Interface by adhering to best practices in interface design, such as “Make interactive Objects obvious”, “Give Feedback”, “Never have users repeat anything”, “Always have default values in fields and forms”, etc.</li> <li>d. Protect a user from system and human errors, by putting automatic system based fault tolerance features such as putting confirmation steps in user workflows.</li> </ul>	Essential	B / R2 - U
25.		Usability	Y				The E-Poll Device should validate user-entered data upon entry at the field level (e.g. data types: dates and numbers, and specific fields with defined structures such as postal codes and telephone numbers must be validated upon entry).	High	B / R2 - U
26.		Usability	Y	Y	Y	Y	Each E-Poll Solution component's look and feel should follow a standard, theme, and text tone across the component.	Med	G / R3 - U
27.		Usability	Y	Y	Y	Y	Each E-Poll Solution component's look and feel should draw attention to key buttons using position, size, and/or highlight.	Med	G / R3 - U
28.		Usability	Y	Y	Y	Y	Each E-Poll Solution component's look and feel should aid recognition with headers, tooltips, and icons.	Med	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
29.		Usability	Y	Y	Y	Y	Each E-Poll Solution component's look and feel should provide brief user instructions and tips in a consistent manner across all controls and displays.	Med	G / R3 - U
30.		Usability	Y	Y	Y	Y	All E-Poll Solution components should not collect the same information from the user more than once	Med	G / R3 - U
31.		Usability	Y	Y	Y		The E-Poll Solution must support customizable colour selection and other visual configuration options to enable EC to brand the interface in accordance with EC standards (e.g. colours reserved by EC as not representing any political party).	Essential	G / R3 - I
32.		Usability	Y				The E-Poll Device should provide a frequently asked questions function which is accessible at any time during operation, without losing the context of the current Elector transaction, and which provides topic based navigation.	High	G / R3 - I
33.		Usability	Y	Y	Y		The E-Poll Solution should provide a visible code on each user screen which, for the purposes of remote support, allows a user seeking assistance to uniquely verify to a remote support person, the function and step they are currently performing.	Med	G / R3 - I
34.		Usability	Y				All E-Poll Device Elector facing functions must be WCAG 2.0 Level AA compliant.	Essential	B / R2 - U
35.		Usability	Y				All E-Poll Device non-Elector, i.e. worker facing, functions should be WCAG 2.0 Level AA compliant.	High	B / R2 - U
36.		Usability	Y	Y	Y		All functions should be WCAG 2.0, Level AAA compliant where applicable.	Med	B / R2 - U
		Heading					<b>CONFIGURABILITY</b>		
37.		Configurability	Y		Y		The E-Poll Solution must provide for EC Configurable text for all Oaths displayed to Electors (wherever in these requirements the requirement for an Oath is identified,	Essential	G / R3 - A

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							EC must provide bilingual variants of the final wording of the Oath text).		
38.		Configurability	Y	Y	Y		The E-Poll Solution should provide for the E-Poll Device, EC Configurable text for all Information Messages, Confirmation Messages, Warning Messages and Barrier Messages displayed to EOs (wherever in these requirements the wording for messages or errors is identified, EC will provide bilingual variants of the final wording of the text).	High	G / R3 - A
38.a		Configurability	Y	Y	Y		The E-Poll Solution should provide for EC Configurable labels for all text displayed to EOs.	Low	G / R3 - A
39.		Configurability	Y		Y		The E-Poll Solution should provide EC the ability to manage the list of approved websites accessible to EOs on the E-Poll Devices.	Essential	G / R3 - U
40.		Configurability	Y		Y		The E-Poll Solution must provide for EC, Configurable functionality when determining if the Elector is at the correct Polling Place, to also determine if the Elector may be served by the E-Poll Device based on the Polling Station specified for the Elector, and the Polling Station(s) served by the E-Poll Device.	Essential	G / R3 - A
41.		Configurability	Y		Y		The E-Poll Solution should permit Configurable functionality to set the frequency of the updates provided for the Polling Place statement of Electors who have voted (i.e. the level of rounding that occurs on the Electors actual vote time, for example to every thirty minutes or every sixty minutes).	High	G / R3 - A

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
42.		Configurability	Y	Y	Y		The E-Poll Solution should provide configurable process flow which permits EC to design and alter the Elector process, i.e., to insert or remove EO actions such as the need to collect an Electronic Signature, capture an Oath, or make a Poll Book entry (per ANNEX A – APPENDIX E.2 –Specification for Poll Book entries)	High	G / R3 - A
43.		Configurability	Y		Y		The E-Poll Solution must permit EC, through a simple configuration, to enable or disable the requirement, for Advance Polls only, to require the EO to capture the Elector's Electronic Signature before allowing the EO to Strike the Elector.	Essential	B / R2 - U
44.		Configurability	Y		Y		The E-Poll Solution should support configurable EC defined checklists through the Contractor Central Server in support of E-Poll Devices as follows: a. Setting up the Service Point b. Hand counting the paper ballots c. Packing up the Service Point d. Daily close of Advance Polls e. Change of EO at Service Point	High	G / R3 - A
44.a	a1	Configurability	Y				The E-Poll Device should enable EOs to access and use, by affirming each item of the checklist independently, EC configurable checklists which require the EOs to complete all steps for: a. Setting up the Service Point b. Counting of Blank Ballots c. Packing up the Service Point d. Daily close of Advance Polls e. Change of EO at Service Point	Med	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
		<b>Heading</b>					<b>AUDITABILITY</b>		
45.		<b>Auditability</b>	Y	Y	Y		In addition or in conjunction with any other audit logging requirements identified ANNEX A – APPENDIX E.9 – SECURITY REQUIREMENTS, the E-Poll Solution must create auditable logs of business transactions, including searches, which include at minimum: <ul style="list-style-type: none"> <li>a. Date/time stamp</li> <li>b. the active set of PDs for which the device was operating</li> <li>c. the identity of the E-Poll Device used to create the transaction</li> <li>d. EO identification (all EO credentials in effect for the transaction)</li> <li>e. Business operation type (e.g. Registration, Striking an Elector, Poll Book entry, etc.)</li> <li>f. Operation result (i.e. success or fail)</li> <li>g. additional information which describes the context and effect of the operation.</li> </ul>	Essential	B / R2 - U
46.		<b>Auditability</b>	Y				The E-Poll Device must provide auditable records which show that all EC information loaded to the device for operation was complete and accurate.	Essential	B / R2 - U
47.		<b>Auditability</b>	Y		Y		The E-Poll Solution must provide audit tools and procedures for both the Contractor Central Server and the E-Poll Devices to enable EC to access audit logs for all E-Poll Solution components.	Essential	B / R2 - U
48.		<b>Auditability</b>	Y		Y		The E-Poll Solution must preserve all information, never overwriting or otherwise deleting any information during operation (each operation to be logged, each alteration of data to preserve the record as it appeared before alteration) ensuring that each data transaction can be reversed, and that the record of the information initially	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							provided to the Polling Place, and all alterations and additions constitute the final record.		
48.a		Auditability	Y		Y		The E-Poll Solution must provide a Warning Message when allocated audit record storage volume reaches 75%, 85% and 95% of repository maximum audit record storage capacity.	Essential	G / R3 - U
48.b		Auditability	Y		Y		The E-Poll Solution must provide a Barrier Message when allocated audit record storage volume reaches 100% of repository maximum audit record storage capacity which prevents further operation.	Essential	G / R3 - U
49.		Auditability	Y				The E-Poll Device must, for every instance of a Warning Message where the EO chooses to continue the operation, record in the audit logs all the information pertinent to the operation and all EO identities in effect at the time (minimum two EOs, and potentially a Supervising EO as well).	Essential	G / R3 - U
50.		Auditability	Y				The E-Poll Device must provide the ability to capture an Electronic Signature for one or more persons when required to do so per these requirements (See " ANNEX A – APPENDIX E.2 –Specification for Poll Book entries").	Essential	B / R2 - U
50.a		Auditability	Y				The E-Poll Device must wherever an Elector’s Electronic Signature is collected, display the text of the Oath (or declaration) as well as any information referred to by the Oath or declaration, and log the signature with the text of the Oath as displayed.	Essential	G / R3 - U
51.		Auditability	Y				The E-Poll Device should whenever an Elector takes an Oath or signs a declaration, at minimum, capture the information described in "ANNEX A – APPENDIX E.2 – Specification for Poll Book entries" for the condition requiring the Elector to take the Oath or sign the	High	R4 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							declaration.		
52.		Auditability	Y				The E-Poll Device must whenever two (or more) EOs are prompted to provide login credentials, prompt the user, in both Official Languages, that the first user providing credentials is the operator of the E-Poll Device, and the second credentials provided are another verifying or supervising EO. Configurable wording shall be provided by EC.	Essential	B / R2 - U
53.		Auditability	Y	Y	Y		The E-Poll Solution must log all exchange of data and must make these logs available to EC. This includes any exchange of data: <ul style="list-style-type: none"> <li>a. between the EC's data centre and the Contractor Central Server</li> <li>b. Between the Contractor Central Server and the Contractor's Polling Place E-Poll Devices</li> <li>c. Any other bulk exchanges of data which are performed as part of the E-Poll Solution operation (for example, at RO offices).</li> </ul>	Essential	B / R2 - U
54.		Auditability	Y	Y	Y		The E-Poll Solution must generate and provide full audit logs of operations performed on E-Poll Solution components, both within the Contractor Central Server and within all E-Poll Devices.	Essential	B / R2 - U
55.		Auditability	Y	Y	Y		The E-Poll Solution must demonstrate with a high level of assurance that the audit log entries can be relied upon to provide a true record of events at the Service Point and for the entire Polling Place.	Essential	B / R2 - U
57.		Auditability	Y	Y	Y		All Contractor Central Server audit logs must be available for access by EC through the Contractor Central Server as they are generated.	Essential	B / R2 - I

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
58.		Auditability	Y	Y	Y		All E-Poll Device audit logs must be available for access by EC through the Contractor Central Server immediately upon upload from E-Poll Devices.	Essential	B / R2 - I
59.		Auditability			Y		The Contractor should make the audit logs available for EC to view in real-time, or as close to that as possible, through a graphical User Interface that is hosted by the Contractor Central Server. This interface should provide the ability to extract these logs.	High	G / R3 - A
	p00	Heading					<b>POLLING OPERATIONS - HAPPY PATH</b>		
	p00	Heading					<b>Note: This section describes the necessary functions to serve voters. The requirements are listed with the minimum requirements for the majority of Electors first (the happy path), followed by principal alternative paths, and finally, less common alternative paths. The groups of requirements are numbered with numerical path identifiers (e.g. "p3.1") which help relate where the path variant is usually encountered in relation to the happy path steps (e.g. "p3"), and may be used to sort the requirements into a more (nearly) Elector transaction chronological order.</b>		
	p00	Heading					<b>HAPPY PATH:</b> For these Electors, about 80%, no special procedure is required. In large Polling Places, they will be directed to "express" lines. When an Elector arrives with their VIC and proper ID documents, path steps are: p1. The Ballot and Check-In EOs verify that the Elector's proof of identity is valid – i.e. on the Chief Electoral Officer list of documents acceptable for this purpose (if not, the Elector may not vote). p2. The Ballot and Check-In EOs verify that the Elector's		



Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							proof of residence is valid – i.e. on the Chief Electoral Officer list of documents acceptable for this purpose. p3. The Check-In EO scans the Elector's VIC to locate the Elector record. p4. The Check-In EO verifies that the Elector is at the correct Polling Place and the Elector record status is "Active". p5. The Check-In EO verifies that the Elector has not voted. p6. The Check-In EO verifies that the information on the list is correct and matches the identity documents provided. p7. The Check-In EO Strikes the Elector. p8. The Ballot EO verifies that their initials are on the back of the ballot, Writes the PD on the back of the ballot, and issues the ballot, the Elector votes and returns with the Marked Ballot. p9. The Ballot EO verifies that the returned ballot is the one issued, removes the counterfoil, and returns the ballot to the Elector to deposit in the ballot box. p10. When the ballot has been cast, the Check-In EO marks the Elector as voted. p11. The Check-In EO makes records describing events at the polls which pertain to the conduct of operation of the poll as required.		
	p00	Heading					Path step p3. The Check-In EO scans the Elector's VIC or searches for the Elector.		
60.	p03	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must provide the ability to search for an Elector on the List of Electors by scanning the barcode on the Voter Information Card (VIC)	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
60.a	p03	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must provide the ability to search for an Elector on the List of Electors by entering the barcode number from the Voter Information Card (VIC).	Essential	B / R2 - U
61.	p03	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, when entering the VIC barcode manually, pre-populate the first 5 digits of the barcode based on the ED of the Elector.	Low	G / R3 - U
62.	p03	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, when any search matches one or more records on the List of Electors, display for each matching Elector record (on a single scrollable screen), at minimum: <ul style="list-style-type: none"> <li>a. last name</li> <li>b. given names</li> <li>c. residential address</li> <li>d. year of birth</li> <li>e. gender</li> <li>f. Polling Division</li> <li>g. Sequence Number</li> <li>h. current voted status</li> <li>i. Polling Place status</li> <li>j. list of elector record status</li> </ul>	Essential	B / R2 - U
62.a	p03	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, whenever a VIC scan search matches exactly one record, immediately display a detailed view where all list information for the matching Elector is viewable, and from which the EO may allow the Elector to vote.	Essential	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
	p04	Heading					<b>Path step p4. The Check-In EO verifies that the Elector is at the correct Polling Place.</b>		
63.	p04	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must calculate the Elector Polling Place status as one of the following: a. "Correct": The PD for the Elector's residential address matches the list of PDs for the Polling Place. b. "Incorrect PD": The PD for the Elector's residential address does not match the list of PDs for the Polling Place, but the address is within the ED. c. "Incorrect ED": The ED for the Elector's residential address does not match the ED for the Polling Place.	Essential	B / R2 - U
64.	p04	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, when configured by EC in the Contractor Central Server, additionally calculate the Elector Polling Place status as: a. "Incorrect PS": The PS for the Elector does not match the list of PSs served by the Service Point.	Essential	B / R2 - U
65.	p04	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, for each row returned by an Elector search, using the PD on the list for the Elector's residential address, and comparing that to the PDs served by the Polling Place, calculate and display the Elector Polling Place status as it relates to the Elector record.	Essential	B / R2 - U
	p05	Heading					<b>Path step p5. The Check-In EO verifies that the Elector has not voted.</b>		
66.	p05	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must display the Elector voted status as one of the following: a. "Not Voted": There is no E-Poll record that the Elector has voted b. "Voted SVR": There is an E-Poll record that the Elector has voted under SVR	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							c. "Voted Adv.": There is an E-Poll record that the Elector has voted at an Advance Poll d. "Voted": There is an E-Poll record that the Elector has already voted.		
67.	p05	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, when any search matches more than one record for an Elector (same Elector Identifier), and any record for that Elector is recorded with any voted status, display only the voted record.	Essential	B / R2 - U
	p06	Heading					<b>Path step p6. The Check-In EO verifies that the information on the list is correct and matches the identity documents provided.</b>		
68.	p06	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, at minimum, display the Elector list record status as one of these states: a. "Active": this is the current record for the Elector on the List of Electors. b. "Inactive": this is an unconfirmed or outdated record for the Elector on the List of Electors (and when an inactive record is selected, Registration is required and The E-Poll Device must initiate a Registration).	Essential	B / R2 - U
69.	p06	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, when any search matches more than one record for an Elector and none have a voted status, sort records so that the "Active" record is first, followed by "Inactive" records, if any.	Essential	B / R2 - U
	p07	Heading					<b>Path step p7. The Check-In EO Strikes the Elector.</b>		
70.	p07	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must provide the ability for an EO to Strike an Elector that has been found on the list with a list record status of "Active", an Elector status of "Not Voted", and a Polling Place status of "Correct", i.e. to record that an on-the-list Elector has been allowed to	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							vote and issued a ballot.		
70.a	p07	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, for Advance Polls only, require the EO to capture the Elector's Electronic Signature before allowing the EO to Strike the Elector (subject to an EC configuration to enable this option).	Essential	B / R2 - U
	p10	Heading					<b>Path step p10. When the ballot has been cast, the Check-In EO Marks the Elector as Voted.</b>		
71.	p10	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must provide the ability for an EO to Mark an Elector as Voted for an Elector on the List of Electors who has been Struck and who has returned the ballot issued to them.	Essential	B / R2 - U
71.a	p10	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability to hold, in a pending state, one previous Elector who is currently voting (i.e. who is Struck, but not yet Marked as Voted) while enabling the EO to begin searching for the next Elector to be served, and allowing all operations for the subsequent Elector to be performed up to, but not including striking the subsequent Elector, and enabling the EO to complete the pending (voting) Elector at any time by marking the pending Elector as voted.	Essential	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
	p00	Heading					<b>POLLING OPERATIONS - ALTERNATIVES TO HAPPY PATH:</b>		
	p03.1	Heading					<b>Path step variant p3.1. NO VIC: When an Elector received a VIC, but has not brought it with them, and must be found by name/address/year of birth search.</b>		
72.	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must provide the ability to search for an Elector on the List of Electors using any combination of any leading portion of: <ul style="list-style-type: none"> <li>a. Elector's name expressed in two fields: <ul style="list-style-type: none"> <li>i. Last name</li> <li>ii. Given Names</li> </ul> </li> <li>b. Elector's Year of birth</li> <li>c. Elector's address expressed as any type specified in ANNEX A – APPENDIX E.1 –EC Address Type Definitions</li> </ul>	Essential	B / R2 - U
73.	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, when any search matches more than one record, display for each Elector (on a single scrollable screen), at minimum: <ul style="list-style-type: none"> <li>a. last name</li> <li>b. first name</li> <li>c. residential address (formatted as one value)</li> <li>d. year of birth</li> <li>e. gender</li> <li>f. Polling Division</li> <li>g. Sequence Number</li> <li>h. current voted status</li> <li>i. Polling Place status</li> <li>j. list of elector record status</li> </ul>	Essential	B / R2 - U
73.a	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, when any search matches records for more than one Elector, display all matching	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							Electors in an ordered list sorted by Elector name and address.		
<b>73.b</b>	p03.1	<b>E-Poll Device - EO - Polling Functions</b>	Y				The E-Poll Device must, when a search is in progress, or complete, restrict the set of results shown to 50 Electors or less.	Essential	G / R3 - U
<b>73.c</b>	p03.1	<b>E-Poll Device - EO - Polling Functions</b>	Y				Whenever the E-Poll Solution restricts the set of results shown to 50 Electors or less because more than 50 are returned, the E-Poll Device must issue an Information Message to the effect that too many results match the search, please provide additional search information.	Essential	G / R3 - U
<b>74.</b>	p03.1	<b>E-Poll Device - EO - Polling Functions</b>	Y				The E-Poll Device must, when a list of matches is displayed (one or more Elector records), provide for the EO the ability to select one Elector, and proceed to a detailed view where all list information is viewable for the Elector, and from which the EO may allow the Elector to vote (i.e. the same result as if a VIC was scanned).	Essential	B / R2 - U
<b>75.</b>	p03.1	<b>E-Poll Device - EO - Polling Functions</b>	Y				The E-Poll Device should, when any search matches more than one record, allow the EO to re-sort displayed matching records by any field in the displayed List of Electors.	Low	G / R3 - U
<b>76.</b>	p03.1	<b>E-Poll Device - EO - Polling Functions</b>	Y				The E-Poll Device should provide the ability to filter any search result to either all Electors or only "Not Voted" status Electors.	Low	G / R3 - U
<b>77.</b>	p03.1	<b>E-Poll Device - EO - Polling Functions</b>	Y				The E-Poll Device should provide the ability to filter any search result to either all Electors or only "Correct" Polling Place status Electors.	Med	G / R3 - U
<b>78.</b>	p03.1	<b>E-Poll Device - EO - Polling Functions</b>	Y				The E-Poll Device should provide the ability to filter any search result to either all Elector records or only the "Active" record for each Elector.	Med	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
79.	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever a search is performed using any part of an Elector's address, search both the residential and mailing address of the list of Elector records.	Essential	B / R2 - U
80.	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, whenever an EO searches by address, provide the ability for the EO to specify the address type as one of the types defined in ANNEX A – APPENDIX E.1 –EC Address Type Definitions, and collect the appropriate component fields for the selected address type, namely: a. Civic b. STRM c. L/C d. non-conforming	High	G / R3 - U
80.a	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability to search for an Elector using a full Canada Post civic address which includes: a. Number (Street Number) b. Suffix (A, B, C etc.) c. Apt/Unit d. Street Name e. Street Type f. Street Direction g. Municipality h. Postal code	High	G / R3 - U



Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
80.b	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability to search for an Elector using a Canadian STRM address type which includes: a. Section b. Township c. Range d. Meridian e. Municipality f. Postal code	High	G / R3 - U
80.c	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability to search for an Elector using a Canadian Lot/Concession (L/C) address type which includes: a. Lot b. Concession c. Municipality d. Postal code	High	G / R3 - U
81.	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must support wild card searches on name and address field searches.	Essential	G / R3 - U
81.a	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must provide the ability to locate Elector records using partial matches using the search criteria entered as matching the first part of Elector record fields.	Essential	G / R3 - U
81.b	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability to locate Elector records when List of Elector record fields match any portion of the search criteria entered.	Low	G / R3 - U
82.	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability to locate Elector records using variations of names (e.g. Bob, Bobby, Robert, Rob), and spellings (e.g. Tammy, Tami) when a variant is entered as search criteria.	Low	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
83.	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability to locate Elector records when List of Elector name fields (i.e. first and last) are reversed.	Low	G / R3 - U
84.	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must provide the ability to select the scope of a search for an Elector record from within the Polling Place or ED.	Essential	B / R2 - U
84.a	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must default the search scope to search for an Elector record from within Polling Place.	Essential	B / R2 - U
84.b	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must contain the list of electors for every polling division within an ED.	Essential	B / R2 - U
84.c	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should be able to contain the list of electors for every ED within a province.	High	R4 - U
84.d	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should be able to access, within the Local Area Network at Polling Place, the list of electors for every ED within Canada.	High	R4 - U
85.	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, when entering search criteria for an Elector record, begin returning matching results after a minimum of 3 characters are entered within a searchable field for last name, given names, or street name.	Low	G / R3 - U
86.	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide name suggestions based on matching names on the List of Electors when the EO enters characters in searchable fields (last name, given names, street name).	Low	G / R3 - U
87.	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability to scan a driver's license barcode (or another acceptable piece of ID), and use the encoded data (name and address) to populate the search criteria for an Elector search.	Low	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
88.	p03.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, when any search matches no records, but the address matches a record in the Poll Key, return an Information Message to the effect that the address is in the Poll Key, but no matching Elector has been found at that address.	High	G / R3 - U
	p02.1	Heading					<b>Path step variant p2.1. Attestation of Residence: When an Elector does not have a proof of residence document, but has another Elector who can attest to their residence.</b>		
89.	p02.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, whenever the EO initiates an Oath so that one Elector may attest to the residence of another, and the attesting Elector lives within the PD of the Elector for whom they are attesting, capture information in a Poll Book entry per ANNEX A – APPENDIX E.2 –Specification for Poll Book entries.	High	R4 - U
89.a	p02.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, when configured to do so, whenever the EO initiates an Oath so that one Elector may attest to the residence of another, and the attesting Elector does not live within the PD of the Elector, capture information in a Poll Book entry per ANNEX A – APPENDIX E.2 –Specification for Poll Book entries.	High	R4 - U
89.b	p02.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, if an attesting Elector is not found on the list for the Polling Place, issue a Warning Message to the effect that the Elector must reside within the same PD, and permit the EO to cancel or continue.	High	R4 - U
89.c	p02.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, if there is a record of the attesting Elector having already attested for another Elector, issue a Barrier Message to the effect that the Elector has already attested for another Elector, and may only attest for one Elector.	High	R4 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
89.d	p02.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, if an EO attempts to allow an Elector to attest for themselves, issue a Barrier Message to the effect that Electors cannot attest for themselves.	High	R4 - U
89.e	p02.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, if there is a record of the attesting Elector having been attested for by another Elector, issue a Barrier Message to the effect that the Elector cannot attest for another Elector's residence because their own residence has been attested for.	High	R4 - U
	p03.2	Heading					<b>Path step variant p3.2 Registration:</b> <b>When an Elector is not on the List of Electors and must be registered.</b> <b>p3.2.1 Registration:</b> <b>The Elector has valid proof of identity and residence documents.</b>		
90.	p03.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, if an Elector is not on the List of Electors for the Polling Place (or the EO chooses an inactive record on the List of Electors), and the EO determines that they are eligible to vote at the Polling Place, provide the ability to register the Elector. This requires the capture of the following information (in the following list, a value must be provided by the EO for all items marked as compulsory before the record Registration can be accepted as complete): a. Elector's name expressed in three fields: i. Last name (compulsory);   ii. First name (compulsory);   iii. Middle name b. Elector's Date of birth expressed in three fields: i. day (optional);   ii. month (optional);   iii. year (optional) c. Elector's Gender (optional) d. Elector's email address (optional)	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							e. Elector's telephone number (optional) f. Elector's residential address (compulsory) expressed as any supported residential address type in ANNEX A – APPENDIX E.1 –EC Address Type Definitions g. A check box (compulsory checked unless item h is provided) to indicate that the mailing address is the same as the residential address, or h. Elector's mailing address expressed as any supported mailing address type in ANNEX A – APPENDIX E.1 –EC Address Type Definitions i. Elector's previous residential address expressed as any supported residential address type in ANNEX A – APPENDIX E.1 –EC Address Type Definitions j. Elector's Electronic Signature (compulsory) k. Elector's option to exclude themselves from the National Register Of Electors (default is opting in). l. A drop-down list showing the type of ID used with the options: i. One piece of government issued photo ID with name and address; ii. One piece of ID and VIC; iii. Two pieces of ID, at least one with address; iv. Two pieces of ID and Attestation of Residence		
91.	p03.2	<b>E-Poll Device - EO - Polling Functions</b>	Y				The E-Poll Device must, whenever a Registration is completed (i.e. before striking and issuing a ballot to a new registered Elector), if no date of birth is provided, issue a Warning Message to the effect that if no date of birth is provided, the Elector must not be added to the National Register Of Electors and must have to register again for future Elections.	Essential	G / R3 - U
92.	p03.2	<b>E-Poll Device - EO -</b>	Y				The E-Poll Device must, whenever a Registration is	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
		<b>Polling Functions</b>					performed in a By-Election, display a Warning Message to the effect that the Elector must have been resident in the ED at the start of revision, (showing the EC provided start of revision date).		
93.	p03.2	<b>E-Poll Device - EO - Polling Functions</b>	Y				The E-Poll Device must, whenever a Registration is performed in a By-Election, additionally require the following information be entered as part of the Registration: a. Confirmation that the Elector has been resident in the ED since the start of revision.	High	B / R2 - U
94.	p03.2	<b>E-Poll Device - EO - Polling Functions</b>	Y				The E-Poll Device must, whenever an address is captured, and in particular for an addition or change to the List of Electors, provide the ability for the EO to specify the address type and collect the appropriate component fields for the selected address type as described in ANNEX A – APPENDIX E.1 –EC Address Type Definitions.	Essential	B / R2 - U
95.	p03.2	<b>E-Poll Device - EO - Polling Functions</b>	Y				The E-Poll Device must, whenever an address is captured and address type is STRM, ensure a municipality name is provided (i.e. municipality name becomes compulsory).	Essential	B / R2 - U
96.	p03.2	<b>E-Poll Device - EO - Polling Functions</b>	Y				The E-Poll Device must, whenever an address is captured, and the address purpose is as a mailing address (i.e. the address type is mailing address, or the address is a residential address and the "mailing address is the same" checkbox is selected), ensure a postal code is provided (i.e. postal code becomes compulsory).	Essential	B / R2 - U
97.	p03.2	<b>E-Poll Device - EO - Polling Functions</b>	Y				The E-Poll Device should, whenever an address is being entered, assist in identifying a correct valid address from the set of EC addresses by proactively displaying address options matching portions of the address entered so far from the EC Poll Key.	High	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
98.	p03.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, when a residential address has been entered during a Registration, using the address information entered, search the EC Poll Key for a matching entry (for which the street number falls in the correct range), and populate the PD associated with the address.	Essential	G / R3 - U
98.a	p03.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever an address is captured for an Elector Registration, and the address is not found in the EC Poll Key, flag the address as new.	Essential	B / R2 - U
98.b	p03.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever an EO attempts to complete a Registration, if the address cannot be found on the EC Poll Key, issue a Barrier Message to the EO to the effect that the address cannot be validated, and that a valid address must be specified, or the EO must select the PD for the address.	Essential	G / R3 - U
98.c	p03.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, when registering an Elector, allow an EO to choose a PD from the list of PDs of the Polling Place.	Essential	B / R2 - U
98.d	p03.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, when registering an Elector, if the EO chooses a PD from the list of PDs and then alters the address so that it is found on the EC Poll Key, overwrite the PD chosen by the EO with the value from the EC Poll Key.	Essential	B / R2 - U
98.e	p03.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, when registering an Elector, if the EO chooses a PD from the list of PDs after the address is found on the EC Poll Key, not overwrite the PD chosen by the EO with the value from the EC Poll Key.	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
99.	p03.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever an EO attempts to complete a Registration, after the PD is identified (or chosen by the EO in the event that the address is not found in the Poll Key), set the Polling Place status as follows: a. "Correct": the PD matches the Polling Place; the Elector is eligible to vote here. b. "Incorrect PD": the Elector is on the List of Electors for the Electoral District, but not for the current Polling Place. c. "Incorrect ED": the Elector's address is found on the Poll Key in another ED.	Essential	B / R2 - U
99.a	p03.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must whenever an EO attempts to complete a Registration, if the Polling Place status resulting from the Registration PD is "Incorrect PD" or "Incorrect ED", issue a Barrier Message preventing the Registration from completing with a message to the effect that the Elector is at the wrong Polling Place and may not vote.	Essential	B / R2 - U
100.	p03.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever an EO successfully completes a Registration, set the Elector voted status to "Not Voted".	Essential	B / R2 - U
101.	p03.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever an EO successfully completes a Registration, set the Elector list record status to "Active".	Essential	B / R2 - U



Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
102.	p03.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, whenever a Registration is completed (i.e. before striking and issuing a ballot to a new registered Elector), perform a search for the Elector based on the information entered in the Registration, and if a match is found on the List of Electors, display the matching record with a Warning Message to the EO to the effect that a matching Elector has been found on the list, and allow the EO to: <ul style="list-style-type: none"> <li>a. select the matching record in the displayed result, or</li> <li>b. complete the Registration</li> </ul>	Med	G / R3 - U
103.	p03.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, for newly registered Electors, provide the ability to record, as a Poll Book entry (per ANNEX A – APPENDIX E.2 –Specification for Poll Book entries), that an Elector has been allowed to vote (Struck) – (i.e., added to the list and Struck).	Essential	G / R3 - U
104.	p03.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, for newly registered Electors, provide the ability to record, as a Poll Book entry (ANNEX A – APPENDIX E.2 –Specification for Poll Book entries), that an Elector has returned their ballot (an Elector Marked as Voted).	Essential	B / R2 - U
	p03.2.2	Heading					<b>Path step variant p3.2.2 Registration – WITH Attestation of Residence:</b> <b>The Elector has valid proof of identity, does not have a proof of residence document, but has another Elector who can attest to their residence.</b>		
105.	p03.2.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, if an Elector is not on the List of Electors and the EO determines that they are eligible to vote, provide the ability for the EO to administer an Oath of Residence (see requirement p.2.1) prior to initiating, or during the Registration function.	High	R4 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
	p03.2.3	Heading					<b>Path step variant p3.2.3 Registration – PRE-PRINTED Registration Certificate:</b> The Elector has a pre-filled Registration Certificate from the E-Registration service. The certificate is scanned to fill the Registration form and Registration proceeds normally.		
106.	p03.2.3	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability to scan an EC E-Registration application 2D barcode, and use the encoded data to populate Elector information when registering an Elector.	High	G / R3 - U
107.	p03.2.3	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability to scan a driver's license barcode (or another acceptable piece of ID), and use the encoded data to populate Elector information (name and address) when registering an Elector.	Low	G / R3 - U
	p03.2.4	Heading					<b>Path step variant p3.2.4 Registration – PREVIOUSLY ON THE LIST/ UNCONFIRMED:</b> An Elector is on the list with a sequence number, and wishes to be re-registered or is a new unconfirmed Elector ("Inactive" records on the List of Electors).		
108.	p03.2.4	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, when an EO chooses an "Inactive" Elector record for the Elector, pre-populate the Elector information of the Registration function with the record data, and require the Registration function to successfully complete before the Elector may be allowed to vote.	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
	p06.1	Heading					<b>Path step variant p6.1 CORRECTION:                      An Elector's information does not match the list information exactly, and the Elector wishes to make a correction.</b>		
109.	p06.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must provide the ability to modify any part of the information constituting the Elector's record on the List of Electors with the exception of the Elector unique identifier, ED, or List of Electors Sequence Number.	Essential	B / R2 - U
110.	p06.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever an Elector's residential address is changed, using the Poll Key, populate the Polling Division associated with the address.	Essential	B / R2 - U
110.a	p06.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever an Elector's residential address is changed, using the Poll Key, if the address cannot be found, issue a Warning Message to the EO to the effect that the address cannot be validated.	Essential	B / R2 - U
110.b	p06.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever an Elector's residential address is changed, if the address cannot be validated but the EO proceeds, require the EO to select a Polling Division from the list of PDs of the Polling Place.	Essential	B / R2 - U
111.	p06.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever an Elector's residential address is changed, set the Polling Place status as follows: <ul style="list-style-type: none"> <li>a. "Correct": the PD matches the Polling Place; the Elector is eligible to vote here.</li> <li>b. "Incorrect PD": the Elector is on the List of Electors for the Electoral District, but not for the current Polling Place</li> <li>c. "Incorrect ED": the Elector's address is found on the Poll Key in another ED.</li> </ul>	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
112.	p06.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, when a correction is being made to the list of information for an Elector, provide the existing entry for edit, and highlight changed fields.	Med	B / R2 - U
113.	p06.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability to scan a driver's license barcode (or another acceptable piece of ID), and use the encoded data to populate Elector information (name and address) when correcting an Elector record.	Low	G / R3 - U
	p04.1	Heading					<b>Path step variants p4.1 WRONG Polling Place: When an Elector is at a Polling Place other than the one for which they are on the list:</b>		
114.	p04.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, when an EO attempts to Strike an Elector, and the Elector Polling Place status is any status other than "Correct", prevent the Strike, issue a Barrier Message to the effect that the Elector must register (or have a transfer certificate), and use the record from the List of Electors to populate the register function, if the EO chooses to continue.	Essential	B / R2 - U
115.	p04.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must provide the ability for an EO to search the national Poll Key using a residential address to determine an Elector's ED, PD and Polling Place.	Essential	B / R2 - U
115.a	p04.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability for an EO to search for an address in the poll key (only supporting the civic address type specified in ANNEX A – APPENDIX E.1 – EC Address Type Definitions).	High	B / R2 - U
116.	p04.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, when searching for an Elector, and only an address is entered, and the address is found in the Poll Key database for a different Polling Place, display a Barrier Message to the effect that Electors for that address must either have a Transfer Certificate or they must vote at a different Polling Place, and display	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							the ED, Polling Place name and address associated with the address search criteria.		
117.	p04.1	<b>E-Poll Device - EO - Polling Functions</b>	Y				The E-Poll Device should, when an Elector is found to be in the wrong Polling Place, provide the ability to display a map of the location of the correct Polling Place.	Low	G / R3 - U
118.	p04.1	<b>E-Poll Device - EO - Polling Functions</b>	Y				The E-Poll Device should, when an Elector is found to be in the wrong Polling Place, provide the ability to display written directions to the correct Polling Place.	Low	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
	p04.1.1	Heading					<b>Path step variant p4.1.1 Transfer Certificate:</b> <b>The Elector has been authorized to vote at the Polling Place and has a Transfer Certificate (white copy):</b> a. RO AUTHORIZED (EC 10190): issued by the RO for Electors with disabilities, Candidates and EOs unable to attend their own Polling Place b. MOVED POLL (EC 50052): issued by an EO to an Elector who arrives at the Polling Place indicated on their VIC when their Polling Place has been changed after the issue of the VIC.		
119.	p04.1.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, when an Elector record is found and selected by the EO, and the record Polling Place status is "Incorrect PD", provide the ability for the EO to capture a Poll Book entry with the information described in ANNEX A – APPENDIX E.2 –Specification for Poll Book entries whenever an Elector is identified as voting with a Transfer Certificate: a. The Transfer Certificate number (compulsory) b. Elector's name: i. Last name (compulsory) ii. Given Names (optional) c. Elector's residential address (compulsory) expressed as any type identified in ANNEX A – APPENDIX E.1 –EC Address Type Definitions d. The Elector's normal ("from") Polling Division (from the Transfer Certificate). e. The Elector's new ("to") Polling Division (from the Transfer Certificate). f. Elector Issued Ballot (Striking an Elector) g. Elector returned ballot (Mark Elector as Voted)	Essential	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
120.	p04.1.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, for Electors voting with a Transfer Certificate, provide the ability to record, as a Poll Book entry (per ANNEX A – APPENDIX E.2 – Specification for Poll Book entries), that an Elector has been allowed to vote (Strike an Elector) – (i.e., not added to the list per se, because they already appear properly on the list at another Polling Place, but recorded in the Poll Book as having voted at the current Polling Place).	Essential	G / R3 - U
121.	p04.1.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, for Electors voting with a Transfer Certificate, provide the ability to record, as a Poll Book entry (per ANNEX A – APPENDIX E.2 – Specification for Poll Book entries), that an Elector has returned their ballot (Mark an Elector as Voted).	Essential	G / R3 - U
	p04.1.2	Heading					<b>Path step variant p4.1.2 WRONG Polling Place – SAME ED:</b> <b>The EO may choose to override the restriction preventing an Elector from voting at the Polling Place, when they are in the correct ED.</b>		
122.	p04.1.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, whenever an EO attempts to Strike an Elector, if the Elector’s PD does not match the Polling Place, but the Elector’s ED matches the ED of the Polling Place: a. provide a Warning Message to the EO to the effect that the Elector is not allowed to vote at this Polling Place, and that a Poll Book entry must be made to allow the Elector to vote, b. provide a choice to the EO to cancel or continue to allow the Elector to vote, and c. if the EO selects continue, record an entry in the Poll Book that the override was used.	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
	p04.1.3	Heading					<b>Path step variant p4.1.3 WRONG Polling Place – DIFFERENT ED: The Elector has made an error, however the EO cannot override; the Elector cannot vote.</b>		
123.	p04.1.3	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever an EO attempts to register an Elector, or perform a change of address for an Elector on the list, if the E-Poll Device determines (based on their residential address and national Poll Key) that the Elector's ED does not match the ED of the Polling Place, provide a Barrier Message to the EO (that the Elector is not eligible to vote at this Polling Place).	Essential	B / R2 - U
	p05.1	Heading					<b>Path step variant p5.1 MARKED AS VOTED IN ERROR: When an Elector is recorded with a voted status, but takes an Oath that they have not voted.</b>		
124.	p05.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever Elector information is displayed for an Elector for whom the voted status is other than "Not Voted", display a clear visual cue to direct the EO's attention to this exceptional circumstance.	Essential	B / R2 - U
125.	p05.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever an EO attempts to Strike an Elector, and the Elector status is any other than "Not Voted", display a Barrier Message to the effect that the Elector must first take an Oath, and prevent the Strike.	Essential	B / R2 - U
126.	p05.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever the status of the active Elector record is any other than "Not Voted", provide the option for the EO to record the administration of an Oath for an Elector Struck in error.	Essential	B / R2 - U



Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
127.	p05.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, whenever the EO initiates the option to administer an Oath for an Elector Struck in error, capture the following information: a. Link to the Elector on list b. Elector's Electronic Signature	High	R4 - U
128.	p05.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever an EO completes the administration of an Oath for an Elector Struck in error, create a duplicate of the voted status Elector record on the list, set the voted status of the duplicate Elector record to "Not Voted", and allow the EO to Strike the Elector and Mark the Elector as Voted using this new record on the List of Electors.	Essential	B / R2 - U
	p08.1	Heading					<b>Path step variant p8.1 Spoiled Ballot:                      When an Elector marks their ballot in error, damages their ballot, or otherwise mishandles their ballot so that it cannot be used, and requests a replacement ballot.</b>		
129.	p08.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, between when an Elector is Struck and when the Elector is Marked as Voted, show the EO the option to accept a Spoiled Ballot and reissue a replacement ballot.	Essential	G / R3 - U
130.	p08.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, each time an EO selects the option to accept a Spoiled Ballot and reissue a ballot, issue an Information Message to the effect that Electors who mishandle their ballot are only entitled to one additional ballot, and that they must cast the replacement ballot.	Essential	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
	p01.1	Heading					<b>Path step variant p1.1 REQUEST FOR ASSISTANCE:</b> When at any time during the voting process, an Elector requests assistance: <b>p1.1.1 REQUEST FOR ASSISTANCE – INTERPRETER:</b> An Elector requests the assistance of an interpreter (including sign language interpreter) and the interpreter must take an Oath.		
131.	p01.1.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability for an EO to initiate an Oath at any time during the voting process to respond to an ad-hoc identification of need when an Elector requests an interpreter.	High	R4 - U
	p01.1.2	Heading					<b>Path step variant p1.1.2 REQUEST FOR ASSISTANCE – MARKING BALLOT:</b> An Elector requests the assistance of a relative or a friend to mark the ballot and the assisting person must take an Oath.		
132.	p01.1.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability for an EO to initiate an Elector Oath at any time during the voting process to respond to an ad-hoc identification of need when an Elector requests assistance to mark the ballot.	High	R4 - U
132.a	p01.1.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability for an EO to record a Poll Book entry (per ANNEX A – APPENDIX E.2 – Specification for Poll Book entries) that an Oath was taken, linked to the Elector, when an Elector request the assistance of another person to mark their ballot.	High	R4 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
	p10.1	Heading					<b>Path step variant p10.1 Candidate REP VIEWS THE LIST: When doing so would not disrupt voters (i.e., when no Electors are waiting) and a Candidate representative requests to view the List of Electors.</b>		
133.	p10.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must provide a reporting function which can be activated by the EO at any time during the polling day which shows the List of Electors, on screen, in reverse order that people voted (i.e. latest first) with both the EC provided Elector voted status (start of day status), and the voted status of electors who voted at the Polling Place (current status).	Essential	B / R2 - U
134.	p10.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must provide a reporting function which can be activated by the EO at any time during the polling day which shows the complete List of Electors for the Polling Place, on screen, ordered by PD and Sequence Number with both the EC provided Elector voted status (start of day status), and the voted status of electors who voted at the Polling Place (current status).	Essential	B / R2 - U
135.	p10.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must record the Strike (issue of ballot) and voted (return of ballot) information for Electors separately from the voted status information provided as part of the EC list to the Polling Place so that both the EC provided Elector voted status (start of day status), and the voted status of electors who voted at the Polling Place (current status) are reportable from the device.	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
	p11.1	Heading					<b>Path steps requiring Poll Book ENTRIES:</b> A record must be made in the Poll Book for atypical circumstances:		
	p11.1.1	Heading					<b>Path step variant p11.1 Candidate INTERVENTIONS:</b> <b>p11.1.1 Candidate REP CHALLENGE TO QUALIFICATION:</b> A Candidate representative asserts that an Elector is not qualified. <b>p11.1.2 Candidate REP REQUEST FOR Elector TO TAKE Oath RE: RESIDENCE:</b> A Candidate representative has doubts respecting the residence of an Elector.		
136.	p11.1.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability for an EO to initiate the process of Elector Oath taking at any time during the voting process to respond to an ad-hoc request from a Candidate, Candidate representative or EO who challenges an Elector’s qualification or residence.	High	R4 - U
137.	p11.1.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability for an EO to record a Poll Book entry (per ANNEX A – APPENDIX E.2 – Specification for Poll Book entries that an Oath was taken, linked to the Elector, when: a. A Candidate, Candidate Representative or EO challenges an Elector's qualification. b. A Candidate, Candidate Representative or EO has doubts about an Elector’s residence.	High	R4 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
	p11.1.3	Heading					<b>Path step variant p11.1.3 Candidate REP OBJECTION TO BALLOT INTERPRETATION: A Candidate representative objects to the counting of a ballot.</b>		
138.	p11.1.3	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability for an EO to record an entry in the Poll Book (per ANNEX A – APPENDIX E.2 –Specification for Poll Book entries) during counting, after the close of polls, when a Candidate, a Candidate representative challenges interpretation of a ballot which includes the decision on whether the ballot was counted or not.	High	R4 - U
139.	p11.1.3	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, whenever a Poll Book entry is created for an objection, generate an objection number, starting at 1, and increasing sequentially, and record that objection number with the Poll Book entry and issue an Information Message to the effect that the EO must write the following objection number on the back of the ballot.	High	R4 - U
	p11.2	Heading					<b>Path step variant p11.2 NOTABLE EVENTS When an unusual event affects the normal operation of the poll, the event is to be recorded in the Poll Book: p11.2.1 Elector REFUSES AN Oath: An Elector refuses to take an Oath when requested to do so.</b>		
140.	p11.2.1	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability for an EO to record a Poll Book entry (per ANNEX A – APPENDIX E.2 – Specification for Poll Book entries), linked to the Elector, when an Elector refuses to take an Oath when asked to do so.	High	R4 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
	p11.2.2	Heading					<b>Path step variant p11.2.2 Elector DOES NOT RETURN THEIR BALLOT: An Elector destroys or leaves the Polling Place with their ballot.</b>		
141.	p11.2.2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability for an EO to record a Poll Book entry (per ANNEX A – APPENDIX E.2 – Specification for Poll Book entries), linked to the Elector, when an Elector does not return their ballot.	High	R4 - U
	p11.2.3	Heading					<b>Path step variant p11.2.3 Elector MISCHIEF: An Elector places an item other than a ballot into the ballot box, shows their ballot in the Polling Place or performs other acts of mischief.</b>		
142.	p11.2.3	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability for an EO to record a Poll Book entry (per ANNEX A – APPENDIX E.2 – Specification for Poll Book entries), linked to the Elector, when an Elector places an unauthorized object in the ballot box, or performs other acts of mischief.	High	R4 - U
	p11.2.4	Heading					<b>Path step variant p11.2.4 OTHER EVENTS AFFECTING POLLING OPERATION: An unusual event disrupts polling (e.g. a fire alarm).</b>		
143.	p11.2.4	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide the ability for an EO to record a Poll Book entry (per ANNEX A – APPENDIX E.2 – Specification for Poll Book entries), when any event disrupts polling operations.	High	R4 - U
	p12	Heading					<b>General Oath Requirements for all paths</b>		
144.	p12	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever a verbal Oath is performed, make an entry in the E-Poll Device which identifies the Oath reason, and collects necessary supporting information as identified in ANNEX A – APPENDIX E.2 – Specification for Poll Book entries.	Essential	R4 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
145.	p12	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, whenever a Written Oath is performed, make an entry in the E-Poll Device which identifies the Oath reason, and collects necessary supporting information as identified in ANNEX A – APPENDIX E.2 –Specification for Poll Book entries, including an Electronic Signature.	Essential	R4 - U
146.	a1	E-Poll Device - SEO	Y				The E-Poll Device should provide a function for a supervising EO to enter an EO name, work start time and work end time to aid ROs in identifying which EOs actually worked at polls, where and when versus what was scheduled.	Low	G / R3 - U
147.	p4	E-Poll Device - SEO	Y				The E-Poll Device must, when all Service Points are closed, allow each Service Point to produce a Polling Place Statement of The Vote report which is the sum of all the E-Poll Device results ANNEX A – APPENDIX E.2 – Specification for Poll Book entries	Essential	G / R3 - U
	a2	Heading					<b>NON-ELECTOR POLLING OPERATIONS</b>		
148.	a2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must provide a "pause poll" function that will place the device in a "paused poll" state, disabling all device functions.	Essential	B / R2 - U
148.a	a2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must provide a "resume poll" function from the "paused poll" state to re-activate operation of the polling device by entering two EO names and corresponding correct passwords from the database of EO credentials, returning the device to the "open poll" state.	Essential	B / R2 - U
149.	a2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide a "Mobile Poll" function that will place the device in a "poll in transit" state, disabling all device functions (for use by Mobile Polls to track non-operational time and new location).	Low	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
149.a	a2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide a "resume poll" function from the "poll in transit" state to re-activate operation of the polling device by entering two EO names and corresponding correct passwords from the database of EO credentials, returning the device to the "open poll" state, and prompting the EO to select a new location for the Mobile Poll (for use by Mobile Polls to track location).	Low	G / R3 - U
150.	a2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, during the operation of the poll, provide the ability for an EO to record: <ul style="list-style-type: none"> <li>a. A number of any additional Blank Ballots provided for use by the Service Point.</li> <li>b. A number of Unused Ballots removed from the Service Point to be added to another Service Point (i.e. a transfer of ballots between Service Points).</li> </ul>	Essential	G / R3 - U
151.	a2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, during the operation of the poll, provide a function for the EO to display a ballot balance report which shows: <ul style="list-style-type: none"> <li>a. The net total of Unused Ballots and each addition or removal of Unused Ballots provided for use by the Service Point.</li> <li>b. The net total of used ballots and subtotal by each use:                             <ul style="list-style-type: none"> <li>i. The number of Electors Struck on the List of Electors</li> <li>ii. The number of Electors who are recorded as voted in error and who have taken the requisite Oath and voted</li> <li>iii. The number of Registrations</li> <li>iv. The number of Electors voted under Transfer Certificate</li> </ul> </li> </ul>	Essential	G / R3 - U



Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							v. The number of Spoiled Ballots vi. The number of lost or stolen ballots c. The number of Unused Ballots that should be remaining to the EOs at the Service Point.		
151.a	a2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, during the operation of the poll, provide a continuous status display of the number of Unused Ballots that should be currently available at the Service Point as the total number provided, less Used Ballots (Electors Struck, Spoiled Ballots, and Lost Ballots).	High	G / R3 - U
152.	a2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device must, during the operation of the poll, provide a function for the EO to manually adjust the number of Lost or Spoiled Ballots.	Essential	G / R3 - U
152.a	a2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, whenever the number of Lost or Spoiled Ballots is manually adjusted, prompt the EO to enter a free text reason, and record the Poll Book entry (per ANNEX A – APPENDIX E.2 –Specification for Poll Book entries) linked to the manual adjustment.	High	G / R3 - U
153.	a2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should, during the operation of the poll, provide a function to measure total service wait time by providing a token to an Elector when they arrive at the Polling Place which is scanned again at the Service Point when they arrive for service (the token must not be associated to the elector carrying it).	Low	G / R3 - U
154.	a2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should enable the RO office to send one or more messages to some or all Polling Places, which will pop-up on the screen of each E-Poll Device at the Polling Place.	Low	G / R3 - U
155.	a2	E-Poll Device - EO - Polling Functions	Y				The E-Poll Device should provide a report for EOs to review previously received messages from the RO office.	Low	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
156.	a2	E-Poll Device - EO - Polling Functions	Y		Y		The E-Poll Solution should enable an EO to send one or more messages to the Contractor Central Server which will be viewable by ROs when displaying the device status from the Contractor Central Server.	Low	G / R3 - U
157.		Backup and Recovery - PP	Y				The E-Poll Device must provide a function accessible by EOs upon completion of the count which exports to a USB drive, or comparable device, for inclusion in the poll bag: a. the identity of the E-Poll Device, b. the identity of each EO that has been authorized by the E-Poll Device, and c. a complete encrypted copy of all device specific data captured on the E-Poll Device (including data from other E-Poll Devices which has been synchronized to the current device.) Note that the information captured on the E-Poll Devices from other Service Points is required.	Essential	B / R2 - U
157.a		Backup and Recovery - PP	Y				The E-Poll Device must provide a software utility which can be used to decrypt the records on a USB device created under requirement 157 to present the complete record of Service Point and Polling Place activities for review as directed by the Chief Electoral Officer.	Essential	B / R2 - U
	a1	Heading					<b>PREPARATION FOR OPENING THE POLL</b>		
158.	a1	E-Poll Device - EO - Non-Polling Functions	Y				The E-Poll Device should, before opening of the poll, require that an EO record the total number of Blank Ballots provided to the Service Point.	High	G / R3 - U
158.a	a1	E-Poll Device - EO - Non-Polling Functions	Y				The E-Poll Device should, upon entry of the number of ballots provided or removed from the Service Point, require the first and last ballot serial numbers to be entered and calculate and display the number of ballots	High	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							based on the ballots being consecutively numbered between these points. (Note: there may be more than one range of ballot serial numbers to consider, and the EO must be able to enter a set of ranges and have the E-Poll Device calculate the total from the set of ranges).		
<b>160.</b>	a1	<b>E-Poll Device - EO - Non-Polling Functions</b>	Y				The E-Poll Device must enable the activation of operation of the polling device by entering two EO usernames and corresponding correct passwords from the database of EO credentials to set the device to an "open poll" state.	Essential	B / R2 - U
<b>160.a</b>	a1	<b>E-Poll Device - EO - Non-Polling Functions</b>	Y				Upon first activation, the E-Poll Device must default the Polling Place (and polling station, if configured) based on the Polling Place (and polling station, if configured) associated with the credentials of the first EO providing credentials (i.e. the Check-in EO).	Essential	G / R3 - U
<b>160.b</b>	a1	<b>E-Poll Device - EO - Non-Polling Functions</b>	Y				At first activation, the E-Poll Device must allow the EO to override the default Polling Place (by name and address) where the device is located (used to calculate Elector Polling Place status).	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
161.	a1	<b>E-Poll Device - EO - Non-Polling Functions</b>	Y				The E-Poll Device must, on demand by an EO, display a status report showing: <ul style="list-style-type: none"> <li>a. The ED,</li> <li>b. The Advance or Ordinary Polling Station number(s) associated to the E-Poll Device</li> <li>c. Polling Place name and address</li> <li>d. PDs that are serviced by the Polling Place</li> <li>e. list of E-Poll Devices (including the device displaying the report), and the status of each, which are currently, or previously have been, on the Polling Place local area network</li> <li>f. The Service Point's unique device ID</li> <li>g. The device ID's current application software version</li> <li>h. Current connectivity status with the Contractor Central Server</li> <li>i. Synchronization status of the device with the Contractor Central Server</li> <li>j. The total number of ballots issued to, and removed from, the Service Point (as entered by the EO)</li> <li>k. The total number of voted Electors processed by the Service Point "before today" (before the day the report is run)</li> <li>l. The total number of voted Electors processed by the Service Point "today" (the day the report is run).</li> <li>m. Last connection date and time with the Contractor Central Server</li> </ul>	Essential	B / R2 - U
161.a	a1	<b>E-Poll Device - EO - Non-Polling Functions</b>	Y				The E-Poll Device should display a welcome screen upon login that includes the report requirement 161.	Low	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
	a3	<b>Heading</b>					<b>CLOSING THE POLL</b>		
<b>162.</b>	a3	<b>E-Poll Device - EO - Non-Polling Functions</b>	Y				The E-Poll Device must provide a "close of poll" function that must place the device in a "closed poll" state, disabling poll operation functions and, on Election Day only, providing access to the set of capabilities that support reporting of manual counting.	Essential	B / R2 - U
<b>163.</b>	a3	<b>E-Poll Device - EO - Non-Polling Functions</b>	Y				When the "close of poll" function is selected, the E-Poll Device must issue a Warning Message to the effect that this must disable all polling functions and initiate support for the counting process; EOs should use the "Pause Poll" function to temporarily stop serving Electors during the polling day.	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
	a4	Heading					<b>OPERATIONS CONDUCTED AFTER THE CLOSE OF THE POLL</b>		
164.	a1	E-Poll Device - EO - Non-Polling Functions	Y				The E-Poll Device must, after the close of the Service Point polling operation (and for use before the opening of the ballot box for counting), provide a function for the EO to display a Service Point ballot balance report which shows: <ul style="list-style-type: none"> <li>a. A subtotal of the expected number of used ballots as the difference between:                             <ul style="list-style-type: none"> <li>i. The net total of Unused Ballots and each addition or removal of Blank Ballots provided for use by the Service Point.</li> <li>ii. The number of remaining Unused Ballots entered after the close of the poll.</li> </ul> </li> <li>b. The total number of voted Electors as the sum of:                             <ul style="list-style-type: none"> <li>i. The number of Electors Struck on the list</li> <li>ii. The number of Electors who were recorded as voted in error and who have taken the requisite Oath and voted</li> <li>iii. The number of Registrations</li> <li>iv. The number of Electors voted under Transfer Certificate</li> </ul> </li> <li>c. The total number of used ballots as the sum of:                             <ul style="list-style-type: none"> <li>i. The total number of voted Electors (from b above)</li> <li>ii. The number of Spoiled Ballots</li> <li>iii. The number of Lost ballots</li> </ul> </li> <li>d. Whether or not the subtotal of a. (expected Used Ballots) matches c. (the total number of Used Ballots).</li> </ul>	Essential	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
165.	a	E-Poll Device - EO - Non-Polling Functions	Y				The E-Poll Device must, after the close of the Service Point polling operation, provide the ability for an EO to: <ul style="list-style-type: none"> <li>a. Record a count of the number of Unused Ballots</li> <li>b. Confirm and adjust if needed the number displayed of Spoiled Ballots by the E-Poll Device</li> </ul>	Essential	G / R3 - U
165.a	p4	E-Poll Device - EO - Non-Polling Functions	Y				The E-Poll Device must, if the number of Unused Ballots does not match the balance of the total number of ballots they have received (tracked by the E-Poll Device and already present) less the number of ballots the E-Poll Device has recorded as used (also tracked by the E-Poll Device and already present), issue a Warning Message to try to resolve the discrepancy before opening the ballot box.	Essential	G / R3 - U
166.	p4	E-Poll Device - EO - Non-Polling Functions	Y				The E-Poll Device must, during the hand count of the ballots, for each ballot counted, provide the ability for EOs to record 1 ballot counted for the candidate and then for the PD as indicated on the ballot (see: ANNEX A – APPENDIX C.3 –Counting Process Conceptual Solution).	Essential	G / R3 - U
167.	p4	E-Poll Device - EO - Non-Polling Functions	Y				The E-Poll Device must, during the hand count of the ballots, whenever a ballot is rejected, record 1 ballot counted as rejected instead of for a candidate (see: ANNEX A – APPENDIX C.3 –Counting Process Conceptual Solution).	Essential	G / R3 - U
168.	p4	E-Poll Device - EO - Non-Polling Functions	Y				The E-Poll Device must, during the hand count of the ballots, whenever a ballot does not have a PD identified, record 1 ballot counted as a blank PD instead of for a PD (see: ANNEX A – APPENDIX C.3 –Counting Process Conceptual Solution).	Essential	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
168.a	p4	<b>E-Poll Device - EO - Non-Polling Functions</b>	Y				The E-Poll Device must, after the hand count of the ballots for the Polling Place, at the direction of a supervising EO, execute an algorithm provided by EC which allocates to PDs, ballots counted for candidates, but with no PD specified, and display the result (see: ANNEX A – APPENDIX C.3 –Counting Process Conceptual Solution).	Essential	G / R3 - U
169.	p4	<b>E-Poll Device - EO - Non-Polling Functions</b>	Y				The E-Poll Device must, during the hand count of the ballots, for each ballot counted, provide a confirmation screen which confirms the candidate (or rejected) and PD (or blank PD) for which the ballot is being recorded, and at this time enable the EO to initiate an objection function.	Essential	G / R3 - U
170.	p4	<b>E-Poll Device - EO - Non-Polling Functions</b>	Y				The E-Poll Device must, during the hand count of the ballots, for each ballot counted, when an objection function is initiated from the confirmation screen, create a Poll Book entry for objection to ballot interpretation per ANNEX A – APPENDIX E.2 –Specification for Poll Book entries.	Essential	G / R3 - U
171.	p4	<b>E-Poll Device - EO - Non-Polling Functions</b>	Y				The E-Poll Device must, during the count of the ballots, for each ballot manually counted, when the objection function is initiated from the confirmation screen, generate a unique sequential objection number, starting at 1 and incrementing by 1, which the EO will record on the back of the ballot, and which will be recorded in the Poll Book entry per ANNEX A – APPENDIX C.3 –Counting Process Conceptual Solution.	Essential	G / R3 - U



Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
172.	p4	<b>E-Poll Device - EO - Non-Polling Functions</b>	Y				The E-Poll device must, once all ballots have been hand counted, if the total number of ballots cast (total number of ballots counted for each candidate + total number of rejected ballots + total number of lost or stolen ballots) does not match the number of Electors Marked as Voted, issue a Warning Message for the EOs to recount and verify the number of ballots counted for each candidate, and those rejected, to try to resolve the discrepancy.	Essential	G / R3 - U
173.	p4	<b>E-Poll Device - EO - Non-Polling Functions</b>	Y				The E-Poll Device must, once all ballots have been hand counted, if the total number of ballots cast (total number of ballots counted for each candidate + total number of rejected ballots + total number of lost or stolen ballots) matches the number of Electors Marked as Voted, enable a function which permits the EO to close the poll.	Essential	G / R3 - U
174.	p4	<b>E-Poll Device - EO - Non-Polling Functions</b>	Y				The E-Poll Device must, when the close Service Point function is activated, provide an opportunity for each EO, and up to 20 witnesses to digitally endorse the reported results of the manual count for the Service Point as follows: The total number of ballots issued to the Service Point is the same as the total of: a. The number of ballots not cast: i. The number of Unused Ballots ii. The number of Spoiled Ballots b. The number of Cast Ballots: i. The number of Rejected Ballots ii. The number of ballots counted for each Candidate iii. The number of lost or stolen ballots	Essential	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
175.		<b>E-Poll Device - EO - Non-Polling Functions</b>	Y				The E-Poll Solution must enable the record of an Elector registered or corrected by an E-Poll Device in a Polling Place to be retrieved by another E-Poll Device at a another Service Point within the same Polling Place, and permit the user to complete the process of voting.	Essential	B / R2 - U
176.	a1	<b>E-Poll Device - SEO Functions</b>	Y				The E-Poll Device should enable a supervising EO (SEO) to search for, and change the voted status to "Voted", for each Elector for whom the supervising EO has a yellow copy of a Transfer Certificate issued by the RO office (EC 10190) (For clarity, these Electors will vote elsewhere and this information is not included in the number of Electors Marked as Voted at a Service Point for balancing purposes).	High	B / R2 - U
177.	a1	<b>E-Poll Device - SEO Functions</b>	Y				The E-Poll Device must provide a function to re-select the Polling Place (by name and address) by entering two EO credentials and corresponding passwords from the database of EO credentials.	Essential	G / R3 - U
178.	a3	<b>E-Poll Device - SEO Functions</b>	Y				The E-Poll Device must provide a function from the closed poll state to re-activate operation of the polling device by entering two EO credentials (including an SEO) and corresponding passwords from the database of EO credentials, returning the device to the "open" state.	Essential	G / R3 - U
179.	p4	<b>E-Poll Device - SEO Functions</b>	Y				The E-Poll Device must, once all ballots have been manually counted, if the total number of ballots cast (total number of ballots counted for each candidate + total number of rejected ballots + total number of lost or stolen ballots) does not match the number of Electors Marked as Voted, provide a function which requires a supervising EO to enter their credentials to close the poll with the imbalance.	Essential	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
		<b>Heading</b>					<b>RETURNING OFFICE OPERATION</b>		
<b>180.</b>		<b>RO AC</b>	Y	Y	Y		The E-Poll Solution must provide a data loading plan for ROs which will allow ACs in the RO office to successfully commission (load all data set out in ANNEX A – APPENDIX E.6 –Data Integration – Data Dictionaries in preparation for deployment of up to 60 E-Poll Devices to Advance Polls, - within the Electoral Event Calendar constraint times described ANNEX A – APPENDIX E.4 – The Electoral Calendar - Key Dates and E-Poll Solution Activities, -within a workspace of 18 square meters (190 sq. ft.), -requiring no more than 4 electrical outlets, for charging the devices, -requiring staff to unpack and handle no more than 30 devices at one time, and -with the use of not more than 2 ACs for a 12 hours period. [For example, to load 60 devices in 12 hours (1 calendar day) in 3 groups of 20 E-Poll Devices would require processing time (unpacked, loaded, charged and re-packaged) of 4 hours or less for each group].	Essential	B / R2 - I

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
181.		RO AC	Y	Y	Y		The E-Poll Solution must provide a data loading plan and poll preparation plan for ROs which will allow ACs in the RO office to successfully commission (load all data set out in ANNEX A – APPENDIX E.6 –Data Integration – Data Dictionaries) in preparation for deployment of up to 240 E-Poll Devices at Ordinary Polls, -within the Electoral Event Calendar constraint times described in ANNEX A – APPENDIX E.4 –The Electoral Calendar - Key Dates and E-Poll Solution Activities, -within a workspace of 18 square meters (190 sq. ft.), -requiring no more than 4 electrical outlets, for charging the devices, -requiring staff to unpack and handle no more than 30 devices at one time, -with the use of not more than 2 ACs for two 12 hour periods. [For example, to load 240 devices in 24 hours (2 calendar days) in 8 groups of 30 E-Poll Devices would require processing time (unpacked, loaded, charged and re-packaged) of 4 hours or less for each group of 30].	Essential	B / R2 - I
182.		RO AC	Y	Y	Y		The E-Poll Solution must provide a method which will deploy all information from the Contractor Central Server required to operate the E-Poll Devices at the polls in compliance with these requirements, from the Contractor Central Server to the E-Poll Devices to be implemented by ACs in the ORO in accordance with requirements 180 and 181.	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
182.a		RO AC	Y	Y	Y		The E-Poll Solution must provide capability for the AC to complete the initial download of data using the EC supplied internet at the ORO only one time for each of requirements 180 and 181, with alternate methods of replicating this data onto the remaining E-Poll Devices using the E-Poll Solution LAN or other medium, and not the ORO LAN or WAN.	Essential	B / R2 - U
183.		RO AC	Y	Y	Y		<p>The E-Poll Solution must provide an E-Poll Device recommissioning plan for ROs which, after Advance Polling, will allow ACs in the RO office to successfully upload all data on each Advance Poll E-Poll Device to the Contractor Central Server, confirm the upload, and prepare the devices for receiving the Ordinary Poll data load</p> <ul style="list-style-type: none"> <li>-within one 12 hour work period,</li> <li>-within a workspace of 18 square meters (190 sq. ft.),</li> <li>-requiring no more than 4 electrical outlets, for using the un-charged devices,</li> <li>-requiring staff to unpack and handle no more than 30 devices at one time, and</li> <li>-with the use of not more than 2 ACs.</li> </ul> <p>[For example, to recommission 60 devices in 12 hours (1 calendar day), would require that 4 groups of 15 E-Poll Devices could be processed (unpacked, offloaded, recommissioned and re-packaged) within 4 hours for each group]</p>	Essential	B / R2 - I

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
184.		RO AC	Y	Y	Y		The E-Poll Solution must provide an E-Poll Device decommissioning plan for ROs which, after Polling Day, will allow ACs in the RO office to successfully upload all data on each Ordinary Poll E-Poll Device to the Contractor Central Server, confirm the upload, remove all EC data, and prepare the device for return to EC for 240 E-Poll Devices, -within five 8 hour business days, -within a workspace of 18 square meters (190 sq. ft.), -not requiring handling more than 30 devices at one time, and -not requiring more than 2 ACs. [For example, to decommission 240 devices in five business days (40 hours) in 20 groups of 12 E-Poll Devices would require processing (unpacked, offloaded, decommissioned and re-packaged) in 2 hours or less for each group]	Essential	B / R2 - I
185.		RO AC	Y	Y	Y		The E-Poll Solution must provide a function, to be implemented by ACs in the ORO in accordance with requirements 183 and 184, which, after uploading all information resulting from operation of the E-Poll Devices at the polls from the E-Poll Devices to the Contractor Central Server and obtaining the confirmation code identified in Requirement 261, removes all EC data from the device.	Essential	B / R2 - I
186.		RO AC	Y				The E-Poll Device should provide a bar-coded, unique inventory tracking number for each component of the E-Poll Device.	High	B / R2 - D
186.a		RO AC	Y				The main E-Poll Device components must have a label with the barcode affixed to a visible location.	High	B / R2 - D

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
186.b		RO AC	Y				The E-Poll carrying case must have a label with the barcode with the same inventory tracking number as the E-Poll Device it contains, and the device components must have a label with the barcode affixed to a visible location.	High	B / R2 - D
187.		RO AC	Y	Y	Y		The E-Poll Solution should provide a utility to scan an E-Poll Device bar-code and associate the device with the identity of an EO in the EC EO database at the time of issue to an EO.	High	G / R3 - S
188.		RO AC	Y	Y	Y		The E-Poll Solution should provide a utility to scan an E-Poll Device bar-code and associate a return of the device by an EO in the EC EO database at the time of return of the device to the RO office by an EO.	High	G / R3 - S
189.		RO AC		Y	Y		After Election Day, the E-Poll Solution must enable ROs and ACs, at the RO office, to offload all data from the devices to the Contractor Central Server.	Essential	B / R2 - U
190.		RO AC	Y	Y	Y		E-Poll Devices must not permit decommissioning (data cleansing) until it is placed in a state, by the Contractor Central Server after confirmation that all data has been uploaded to the Contractor Central Server, such that it can be decommissioned.	Essential	B / R2 - U
191.		RO AC	Y	Y	Y		The E-Poll Solution must permit an E-Poll Device which has been used at an Advance Polling Place, to receive all necessary updates to enable the reuse of the device at an Ordinary Polling Place without having to return the E-Poll Device to the RO office.	Essential	G / R3 - U
192.		Deployment and Decommissioning	Y	Y			The Contractor must receive the devices from the hardware manufacturer directly, and configure the devices to include all Contractor supplied software, and meeting all EC configuration, security and other requirements.	Essential	B / R2 - D

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
193.		Deployment and Decommissioning		Y			The Contractor must ship devices to one or more designated EC approved storage areas in Canada to arrive ready for RO and AARO office deployment in accordance with ANNEX A - APPENDIX G – ELECTORAL EVENT DEPLOYMENT SCHEDULES.	Essential	B / R2 - D
194.		Deployment and Decommissioning		Y			At the call of the Event, the Contractor must ship the E-Poll Devices in requisite quantities to each of the RO and AARO offices from which they will be deployed.	Essential	B / R2 - D
195.		Deployment and Decommissioning		Y			At all times when components of the E-Poll Solution are in transit, they must be secured as per ANNEX A – APPENDIX E.9 –SECURITY REQUIREMENTS.	Essential	B / R2 - D
196.		Deployment and Decommissioning	Y	Y	Y		The Contractor must recoup all Contractor provided equipment from RO and AARO offices to the Contractor's inventory for EC.	Essential	B / R2 - D
197.		Deployment and Decommissioning	Y	Y	Y		The Contractor must confirm to EC, all equipment returned and not returned to the Contractor's inventory for EC.	Essential	B / R2 - D
198.		Deployment and Decommissioning	Y	Y	Y		After each GE, when EC indicates to the Contractor that the GE result is a minority government, the Contractor must preserve the equipment available for EC's use and must start preparations to verify E-Poll Device readiness and await orders for repackaging.	Essential	G / R3 - P
199.		Deployment and Decommissioning	Y	Y	Y		After each GE, when EC indicates to the Contractor that the GE result is a majority government, the Contractor must purge the data from the E-Poll Devices as in Requirement 354, reducing the inventory level for EC at By-Election levels.	Essential	G / R3 - P



Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
		Heading					<b>IDENTITY AND ACCESS MANAGEMENT</b>		
		Heading					<b>Note: Polling Places can be very geographically isolated, and the EOs must receive all polling materials before Polling Day. This means materials, including the E-Poll Device will often be shipped days before Polling Day, and may be shipped by courier. It will not be possible to provide in-person support to many Polling Places on Polling Days. With up to 250,000 EOs, the number of forgotten passwords will pose a significant challenge. Many Polling Places will not have Internet access, and in particular small remote polls are unlikely to have Internet access. It will not be possible to provide remote access connections to support many Polling Places on Polling Days. EOs will have access to the E-Poll Devices in the privacy of their home and must be able to leverage a wireless access point to synchronize data with the Central Server, but must not be allowed to access Election data by themselves. Current Legislation requires two people at minimum to operate polling. In many small Polling Places, there are only two people.</b>		
200.		Identity and Access Management	Y				The E-Poll Device must, whenever the device is powered on, require entering two EO names and corresponding passwords from the database of EO credentials to enable the application.	Essential	B / R2 - U
201.		Identity and Access Management	Y				The E-Poll Device must require the credentials of two EOs to open the poll (i.e. activate and operate polling functions).	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
202.		Identity and Access Management	Y				The E-Poll Device must, whenever the device is powered down partially (sleep/hibernate) or completely, restore the last state of operation when the device is powered on. The E-Poll Device must still require two EO names and corresponding passwords to enable the application.	Essential	B / R2 - U
203.		Identity and Access Management	Y				The E-Poll Device must not permit an individual EO or SEO to access any operational or elector data on the E-Poll Device.	Essential	B / R2 - U
204.		Identity and Access Management	Y				The E-Poll Device must permit an individual EO (one EO's credentials have been provided) to access the training functions on the device.	Essential	B / R2 - U
205.		Identity and Access Management	Y		Y		The E-Poll Device must permit an individual EO (one EO's credentials have been provided) to access a (public or private) wireless network, and securely synchronize with the Contractor Central Server.	Essential	B / R2 - U
206.		Identity and Access Management	Y				The E-Poll Device must support exactly one role on E-Poll Devices: EO. Note that where a supervising EO is required, this is simply the credentials of a third EO.	Essential	B / R2 - U
207.		Identity and Access Management	Y	Y	Y		The E-Poll Solution must support defining named user accounts and credentials for the purpose of authenticating EOs for use of E-Poll devices.	Essential	B / R2 - U
208.		Identity and Access Management	Y	Y	Y		The Contractor's solution must permit an EO to authenticate to any E-Poll device within their assigned ED.	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
209.		Identity and Access Management	Y				An E-Poll Device must enable two EOs to be able to reset the password for a third.	Essential	B / R2 - U
210.		Identity and Access Management	Y	Y			The E-Poll Device must provide a function to make last minute additions and changes to valid user credentials on each E-Poll device up to and including Election Day.	Essential	B / R2 - U
211.		Identity and Access Management			Y		The E-Poll Solution must provide administrative roles and user accounts for ECHQ users accessing the Contractor Central Server to configure the E-Poll Solution.	Essential	G / R3 - A
212.		Identity and Access Management			Y		The E-Poll Solution must provide roles and user accounts for ECHQ users accessing the Contractor Central Server to monitor the Electoral Event and access business intelligence functions at a national level.	Essential	G / R3 - A
213.		Identity and Access Management			Y		The E-Poll Solution must provide roles and user accounts for RO users accessing the Contractor Central Server to monitor the Electoral Event and access business intelligence functions for their ED.	Essential	G / R3 - A
214.		Identity and Access Management			Y		The E-Poll Solution should provide an administrative access to EC which will enable EC to define and configure necessary access by ROs and their staff to the monitoring functions provided by the Contractor Central Server.	Med	B / R2 - I

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
		<b>Heading</b>					<b>BUSINESS INTELLIGENCE</b>		
<b>215.</b>		<b>Business Intelligence</b>			Y		The E-Poll Solution should provide the ability to produce customizable reports from operational measures (facts) such as: <ul style="list-style-type: none"> <li>a. The number of device transactions, including searches.</li> <li>b. The number of non-validated addresses captured by Registration.</li> <li>c. The number of devices operational at the opening of polls and timing profile for late opening devices.</li> <li>d. The number of devices closing on time and timing profile for late closing devices.</li> <li>e. The number, timing and duration of device suspensions during polling hours.</li> </ul> The average time to conduct opening and closing checklists and counting activities.	Med	B / R2 - D
<b>216.</b>		<b>Business Intelligence</b>			Y		The E-Poll Solution should provide the ability to group, subtotal and order customizable reports by operational business entities (dimensions) such as: <ul style="list-style-type: none"> <li>a. Service transaction type (happy path, Registration, correction etc.)</li> <li>b. E-Poll Device</li> <li>c. EO</li> <li>d. Date time</li> <li>e. Polling Place</li> <li>f. Polling Place type (advance vs ordinary)</li> <li>g. ED</li> <li>h. PD</li> <li>i. Province</li> </ul>	Med	B / R2 - D

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
		<b>Heading</b>					<b>INFRASTRUCTURE</b>		
<b>217.</b>		<b>Physical Components</b>	Y	Y	Y	Y	All hardware, software, and firmware components of the E-Poll Solution must be legitimate, official, licensed, and of production-grade.	Essential	B / R2 - A
<b>218.</b>		<b>Physical Components</b>	Y	Y	Y	Y	The Contractor must manage procurement, implementation and maintenance of all hardware, software, and licenses for all tiers of the E-Poll Solution.	Essential	B / R2 - A
<b>219.</b>		<b>Physical Components</b>	Y	Y	Y	Y	The Contractor must provide EC with all necessary infrastructure, tools, licenses, procedures and reports necessary to conduct all forms of testing identified in this SOW as and when required under the contract scheduled deliverables, for Acceptance Testing and when requested by a Task Request.	Essential	B / R2 - A
<b>220.</b>		<b>Physical Components</b>				Y	The Contractor Operators Manual for the E-Poll Solution must describe the Contractor's policies and procedures for: <ul style="list-style-type: none"> <li>a. installation of all E-Poll Solution components;</li> <li>b. maintenance and upgrade of all E-Poll Solution components;</li> <li>c. operation of all E-Poll Solution components;</li> <li>d. decommissioning and archive of all E-Poll Solution components;</li> <li>e. restoration from archive of all components necessary to support reporting and audit from the Contractor Central Server solution components;</li> <li>f. audit of all E-Poll Solution components; and</li> <li>g. secure operation of all E-Poll Solution components.</li> </ul>	Essential	B / R2 - D

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
221.		Physical Components				Y	The Contractor Training and supporting materials for the E-Poll Solution must describe the Contractor's policies and procedures for: <ul style="list-style-type: none"> <li>a. installation of all E-Poll Solution components;</li> <li>b. maintenance and upgrade of all E-Poll Solution components;</li> <li>c. operation of all E-Poll Solution components;</li> <li>d. decommissioning and archive of all E-Poll Solution components;</li> <li>e. restoration from archive of all components necessary to support reporting and audit from the Contractor Central Server solution components;</li> <li>f. audit of all E-Poll Solution components; and</li> <li>g. secure operation of all E-Poll Solution components.</li> </ul>	Essential	G / R3 - I
222.		Physical Components				Y	The Contractor must provide the products, services and deliverables identified in ANNEX A - APPENDIX F – CONTRACTOR PLAN AND DELIVERABLE SCHEDULE, in accordance with this SOW.	Essential	C - E
223.		Physical Components - CCS			Y	Y	The Contractor must provide all network infrastructure (hardware, firmware, software etc.) required at the Contractor Central Server hosting site to support communication between the Contractor Central Server and EC Data Centre.	Essential	B / R2 - A
223.a		Physical Components - CCS			Y	Y	The Contractor must, for the Term of the Contract, provide hosting services for the Contractor Central Server provided by a service provider holding a valid ISO 27001:2013 certification, and such ISO certification must be issued by a reputable certification body (such as a certification body employing CASCO standards).	Essential	B / R2 - A

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
224.		Physical Components - CCS			Y	Y	The Contractor must provide all Contractor Central Server Software (i.e. the Contractor E-Poll Solution software, and all supporting software required to meet the requirements of this SOW such as: operating system, RDBMS (Relation Database Management System) software, drivers, backup and recovery etc.)	Essential	B / R2 - A
225.		Physical Components - PP	Y	Y			Where the E-Poll Solution requires the use of secured USB keys, SD cards or other electronic storage devices, the Contractor must supply them.	Essential	B / R2 - D
226.		Physical Components - PP	Y	Y	Y	Y	The Contractor must provide all network infrastructure (hardware, firmware, software etc.) required at Polling Places where E-Poll Devices are deployed to support communication between the E-Poll Devices and the Contractor Central Server (WAN).	Essential	B / R2 - A
227.		Physical Components - PP	Y			Y	The Contractor must provide all network infrastructure (hardware, firmware, software etc.) required at Polling Places where E-Poll Devices are deployed to support inter-communication between E-Poll Devices at the Polling Place (LAN).	Essential	B / R2 - D
228.		Physical Components - PP	Y	Y		Y	The Contractor must provide all E-Poll Device Kits (i.e. the E-Poll Solution E-Poll Device, carrying case, memory devices, and all supporting physical accessories required to meet the requirements of this SOW).	Essential	B / R2 - D
228.a		Physical Components - PP	Y	Y		Y	The Contractor must provide all E-Poll PP Kits (i.e. the E-Poll Solution Polling Place supporting physical accessories required to meet the requirements of this SOW which are not part of the E-Poll Device Kit, for example LAN components).	Essential	B / R2 - D

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
228.b		Physical Components - PP	Y	Y		Y	The Contractor must provide all E-Poll RO Kits (i.e. the Contractor RO Office supporting physical accessories required to meet the requirements of this SOW which are not part of the E-Poll Device Kit, for example LAN/WAN components).	Essential	B / R2 - D
228.c		Physical Components - PP	Y	Y		Y	The Contractor must provide all E-Poll Device Kits, E-Poll PP Kits and E-Poll RO Kits in the quantities specified per " <b>Section 38.07 Integration and Testing</b> " of the SOW to support EC testing.	Essential	B / R2 - D
228.d		Physical Components - PP	Y	Y		Y	The Contractor must ensure that, for each Electoral Event, every component part of each of the E-Poll Device Kits, E-Poll PP Kits and E-Poll RO Kits are of sufficiently comparable version that the physical and functional forms (look, feel, training, usability, etc.) are identical from a user perspective.	Essential	B / R2 - D
228.e		Physical Components - PP	Y	Y		Y	The Contractor must ensure that, for each Electoral Event, the software image for every component part of each of the E-Poll Device Kits, E-Poll PP Kits and E-Poll RO Kits are identical, including the operating system patched to the same version, component COTS products patched to the same version, and the Contractor's software components at the EC UAT approved Event Ready version for that Electoral Event.	Essential	B / R2 - D
229.		Physical Components - PP	Y	Y		Y	The Contractor must provide all E-Poll software (i.e. the Contractor's E-Poll Solution software, and all supporting software required to meet the requirements of this SOW such as: operating system, RDBMS software, drivers, backup and recovery etc.)	Essential	B / R2 - D



Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
230.		Physical Components - RO		Y			The Contractor must provide for each RO and AARO office from which devices will be deployed to Polling Places, all networking infrastructure necessary to support the communication of data to and from the Contractor Central Server (CCS) to configure the devices with requisite data in the timeframes described in Requirements 180 and 181 (WAN and LAN). The E-Poll Devices may communicate with the CCS using the RO/AARO office ISP connection, but must do so on a separate sub-network (there must be no access between the Contractor's network and the ORO network).	Essential	B / R2 - D
230.a		Physical Components - RO		Y			The delivery of the E-Poll Device Kits, E-Poll PP Kits and E-Poll RO Kits to ORO and AARO offices must be completed within 96 hours of Notification to ship.	Essential	B / R2 - D
231.		Physical Components - RO	Y	Y	Y		The E-Poll Solution must provide all necessary infrastructure (servers, network components, storage devices, procedures, power management and other supplies) as an E-Poll RO Kit necessary to access the Contractor Central Server from the ORO and to support loading of data onto the devices from the Contractor Central Server in preparation for deployment to the polls, and offloading of all data from the devices to the Contractor Central Server in preparation for removal of EC data and decommissioning the devices.	Essential	B / R2 - A
232.		Physical Components - RO	Y	Y	Y		The E-Poll Solution must provide all necessary infrastructures (servers, procedures, bar code readers and other supplies) necessary to manage the E-Poll Device inventory, including assignment of E-Poll Devices to EOs and their return.	Essential	B / R2 - A

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
233.		Physical Components - RO	Y	Y	Y	Y	The Contractor must provide all hardware (server) infrastructure required, if any as proposed by the Contractor, located at the ORO, to support: <ul style="list-style-type: none"> <li>a. configuring the devices for use at ORO</li> <li>b. managing downloaded updates from the Contractor Central Server</li> <li>c. managing upload of all information collected during operation of the E-Poll Devices to the Contractor Central Server</li> <li>d. decommissioning the devices at the ORO</li> <li>e. managing the inventory of devices (assignment to EOs and return to RO)</li> <li>f. EO training on E-Poll Devices</li> </ul>	Essential	B / R2 - D
		<b>Heading</b>					<b>EC INTERFACE</b>		
234.		EC Interface			Y		The E-Poll Solution must support information exchange from EC's data centre information systems to the Contractor Central Server as defined in ANNEX A – APPENDIX E.6 –Data Integration – Data Dictionaries, ANNEX A – APPENDIX E.7 –Data Integration – Web Services and ANNEX A – APPENDIX E.8 –Data Integration – Validation Rules.	Essential	B / R2 - U
235.		EC Interface	Y	Y	Y		The E-Poll Solution must support bulk load of credentials for all EOs within the ED at the ORO/AARO office to all E-Poll Devices prior to deployment (E-Poll Device credentials for EOs will be captured at the time of training).	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
236.		EC Interface		Y	Y		The E-Poll Solution must, during Service Point polling operation, automatically upload information from the Contractor Central Server to the EC data centre as soon as it is received as described in ANNEX A – APPENDIX E.6 –Data Integration – Data Dictionaries, ANNEX A – APPENDIX E.7 –Data Integration – Web Services and ANNEX A – APPENDIX E.8 –Data Integration – Validation Rules.	Essential	B / R2 - U
237.		EC Interface		Y	Y		The E-Poll Solution must, during Service Point polling operation, automatically download EC data updates from the EC data centre to the Contractor Central Server as soon as it is available as described in ANNEX A – APPENDIX E.6 –Data Integration – Data Dictionaries, ANNEX A – APPENDIX E.7 –Data Integration – Web Services and ANNEX A – APPENDIX E.8 –Data Integration – Validation Rules..	Essential	B / R2 - U
238.		EC Interface	Y	Y	Y		The E-Poll Solution must support automatic upload and download of information between the E-Poll Devices, the Contractor Central Server, and the EC data centre, in as close to real-time as possible.	Essential	B / R2 - U
239.		EC Interface			Y		The E-Poll Solution must, when communicating information between the Contractor Central Server and EC, operate all operations at an ED level, neither assuming that data for any ED other than the one for the current transaction exists or does not exist. (The E-Poll Solution must support General Elections and referendums where data will be present for all EDs, and By-Election events for a small group of EDs which may overlap with a different By-Election event supporting a different small set of EDs on a different Electoral Event Calendar). Data will be provided on an ED by ED basis.	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
240.		EC Interface	Y	Y	Y		The E-Poll Solution must provide procedures and infrastructure to perform bulk load of information to E-Poll Devices in the RO office prior to deployment to the Polling Place.	Essential	B / R2 - U
241.		EC Interface	Y	Y	Y		The E-Poll Solution must, whenever receiving List of Elector information through the API from EC as described in ANNEX A – APPENDIX E.6 –Data Integration – Data Dictionaries, ANNEX A – APPENDIX E.7 –Data Integration – Web Services and ANNEX A – APPENDIX E.8 –Data Integration – Validation Rules, ensure that information flagged for update by EC is updated on each applicable E-Poll Device (devices within the affected ED) as soon as connectivity permits, unless the record has been Marked as Voted at the Service Point.	Essential	B / R2 - U
242.		EC Interface	Y	Y	Y		The E-Poll Solution must, whenever receiving List of Elector information through the API from EC as described ANNEX A – APPENDIX E.6 –Data Integration – Data Dictionaries, ANNEX A – APPENDIX E.7 –Data Integration – Web Services and ANNEX A – APPENDIX E.8 –Data Integration – Validation Rules, ensure that information flagged for deletion by EC is deleted from each applicable E-Poll Device (devices within the affected ED) as soon as connectivity permits unless the record has been Marked as Voted at the Service Point.	Essential	B / R2 - U
243.		EC Interface	Y	Y	Y		The E-Poll Solution must support multiple list records provided by EC for the same Elector (same Elector Identifier). (There will be typically zero or one "Active" record – the current record, and one or more "Inactive records" – outdated records.	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
244.		EC Interface	Y	Y	Y		The E-Poll Solution must (be resilient and) support multiple list records provided by EC for the same Elector (same Elector Identifier) with any number of "Active" and/or "Inactive" records without error to the EO. (In the event that there is more than one "Active" record for an Elector, wherever these requirements assume a single record, the record that is meant is the latest "Active" record received from EC. Should this occur, it is acceptable for the Contractor to update any previously received "Active" record for the same Elector Identifier to "Inactive").	Essential	B / R2 - U
245.		EC Interface	Y	Y	Y		The E-Poll Solution must, whenever multiple records for an Elector (same Elector Identifier) are received from EC, and the E-Poll Device sets the status of any of the records to "Voted", treat all records on the list for that Elector Identifier as "Voted" (to prevent multiple voting using different available records).	Essential	B / R2 - U
246.		EC Interface			Y		The E-Poll Solution design must ensure that content and format of all data being exchanged between the Contractor and EC follows an established standard and open data format that allows for verification of content and structure at source and destination.	Essential	B / R2 - U
247.		EC Interface	Y	Y	Y		The E-Poll Solution must maintain EC primary keys required to build internal interface processes and retain data integrity. This applies to data originally supplied by EC as well as data collected and/or processed by the E-Poll Solution.	Essential	B / R2 - U
249.		EC Interface			Y		The network connection between the EC data centre and the Contractor Central Server must provide dedicated and diverse path MPLS facility connectivity (i.e. dual MPLS paths) that supports OSPF routing protocol for the	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							MPLS IGP.		
250.		EC Interface			Y		The network connection between the EC data centre and the Contractor Central Server must work with EC's end-points and comply with EC's standards (currently a pair of 3810-A EC customer edge device (Fortinet) configured in High Availability mode).	Essential	B / R2 - U
252.		EC Interface			Y		The network connection between the EC data centre and the Contractor Central Server must handle failover scenarios such as, but not limited to, network failures, service host shutdown, and service not responding.	Essential	B / R2 - U
		<b>Heading</b>					<b>CCS - E-POLL DEVICE INTERFACE</b>		
253.		CCS - E-Poll Device Interface	Y	Y			The E-Poll Device must support communication of information with the Contractor Central Server, when connectivity permits, as identified in the technical requirements, in a manner that does not perceptibly degrade performance for EOs using the device.	Essential	B / R2 - U
254.		CCS - E-Poll Device Interface	Y	Y			The E-Poll Device must continue working without interruption or deterioration of Elector facing functions when the application has no wide area connectivity to servers external to the Polling Place.	Essential	B / R2 - U
255.		CCS - E-Poll Device Interface	Y	Y			The E-Poll Device must, at minimum, function using one or more stand-alone devices with no Polling Place external network access.	Essential	B / R2 - U
256.		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Device must, after activation with one or more EO credentials, as soon as internet connectivity permits, report to the Contractor Central Server the device Polling Place, E-Poll Device identifier and device state.	Essential	G / R3 - U
257.		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Device must, after any change of device state, as soon as internet connectivity permits, report the current E-Poll Device state to the Contractor Central	Essential	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							Server with the device Polling Place and E-Poll Device identifier.		
258.		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Device should automatically send status information, as soon as internet connectivity permits, to the Contractor Central Server which will be accessible to ROs, to be displayed beside the device states such as: low quantity of remaining ballots, low battery.	Low	G / R3 - U
259.		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Solution must automatically and securely apply EC provided incremental data changes to the E-Poll Devices after they are deployed to the Polling Places as quickly as possible (near real-time) over public or private internet connections, when connectivity permits.	Essential	G / R3 - U
260.		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Solution must automatically and securely upload all data and log files captured on E-Poll Devices to the Contractor Central Server, over public or private internet connections, after they are deployed to the Polling Places, as quickly as possible (near real-time) when connectivity permits.	Essential	G / R3 - U
260.a		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Solution must support automatic upload of list corrections at the polls from all E-Poll Devices to the Contractor Central Server as close to real-time as possible.	Essential	G / R3 - U
260.b		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Solution must support automatic upload of Registrations at the polls from all E-Poll Devices to the Contractor Central Server as close to real-time as possible.	Essential	G / R3 - U
260.c		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Solution must, during Service Point polling operation, whenever connectivity permits automatically upload Elector voted information from each E-Poll Device (including information from all other E-Poll	Essential	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							Devices at a Polling Place) to the Contractor Central Server.		
260.d		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Solution should, when connectivity permits, as close to real-time as possible, automatically download all advance Poll strikes within the ED to all advance E-Poll Devices during, and after the close of, each of the four days of Advance Polls.	Essential	G / R3 - U
260.e		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Solution must, after the E-Poll Device is placed into a closed state at the end of any Polling Day, as close to real-time as possible or as soon as connectivity permits, automatically upload all Service Point operational data and logs from the E-Poll Device to the Contractor Central Server.	Essential	B / R2 - U
260.f		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Solution must support automatic upload of other poll book entries such as transfer certificate usage and incident reports at the polls from all E-Poll Devices to the Contractor Central Server as internet connectivity permits, prioritizing these lower than transfers in 259, 260, 260.a to 260.e, if necessary.	Essential	G / R3 - U
260.g		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Solution must, after the E-Poll Device is placed into a closed state at the end of any Polling Day, as close to real-time as possible or as soon as connectivity permits, automatically upload all Polling Place operational data and logs from other E-Poll Devices (which is redundantly available on the E-Poll Device) to the Contractor Central Server if the data from those other devices has not already been received by the CCS.	Essential	B / R2 - U



Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
260.h		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Solution must, after the E-Poll Device is placed into a closed state at the end of each Advance Polling Day, as an alternative to network upload, provide a function for an EO to export the ED, PD and Elector Sequence Number of electors who have voted at the Advance Poll to a portable storage device which can be carried to the RO office and uploaded to the Contractor Central Server if the data from those other devices has not already been received by the CCS.	Essential	B / R2 - U
261.		CCS - E-Poll Device Interface	Y	Y	Y		Upon receipt of all data that must be uploaded from an E-Poll Device, the Contractor Central Server must generate a unique random five alphanumeric character confirmation code of the form AAnnA for issue to the E-Poll Device to confirm the device may be decommissioned by the AC.	Essential	B / R2 - U
261.a		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Device must, after the device is placed into a closed state at the end of any Polling Day, upon successful completion of upload of all Service Point operational data and logs from the device to the Contractor Central Server, obtain from the Contractor Central Server the unique confirmation code identified in requirement 261 and display this code to the EO.	Essential	B / R2 - U
261.b		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Device must, after the device is placed into a closed state at the end of any Polling Day, upon successful completion of upload of all Service Point operational data and logs from the device to the Contractor Central Server, and having obtained from the Contractor Central Server the unique confirmation code identified in requirement 261, provide a clear visual indication to any authorized user accessing the device (and displaying the unique confirmation code), that the	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							information from the device has been captured by the Contractor Central Server and may be decommissioned.		
261.c		CCS - E-Poll Device Interface	Y	Y	Y		The E-Poll Device must, when uploading information to the Contractor Central Server, if all of the device information has already been uploaded by another peer device, nevertheless upload its own data and obtain a unique confirmation code identified in requirement 261 for the current device.	Essential	B / R2 - U
		Heading					<b>E-POLL DEVICE PEER-TO-PEER INTERFACE</b>		
262.		E-Poll Device peer-to-peer Interface	Y				The E-Poll Device must share all E-Poll transaction information (registrations, corrections, Struck electors, Poll Book entries etc.) collected by each device within a Polling Place with all other devices within that Polling Place (either through a Polling Place central server or on a peer-to-peer basis).	Essential	B / R2 - U
263.		E-Poll Device peer-to-peer Interface	Y		Y		The E-Poll Solution must share information updates from EC such that each E-Poll Device in a Polling Place shares all downloaded updates from the Contractor Central Server with all other devices within that Polling Place, and every device is operating at the latest level of updates of any device in the Polling Place (either through a Polling Place central server or on a peer-to-peer basis).	Essential	B / R2 - U
264.		E-Poll Device peer-to-peer Interface	Y				The E-Poll Device must lock an Elector record when it is selected as the current Elector record by one device so that it cannot be selected by another device in the same Polling Place without error.	Essential	B / R2 - U
265.		E-Poll Device peer-to-peer Interface	Y				The E-Poll Device must communicate List of Elector record locking and completed voter transactions between devices within the Polling Place within 1 minute.	Essential	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
265.a		E-Poll Device peer-to-peer Interface	Y				The E-Poll Device should communicate List of Elector record locking and completed voter transactions between devices within the Polling Place within 10s.	Med	G / R3 - U
266.		E-Poll Device peer-to-peer Interface	Y				The E-Poll Device must, when an EO attempts to select a current Elector record which is locked by another device in the same Polling Place, issue a Barrier Message to the effect that the Elector record is currently being processed at another Service Point.	Essential	G / R3 - U
		<b>Heading</b>					<b>MAINTENANCE</b>		
267.		Maintenance			Y		Planned maintenance must occur between midnight Friday and 6:00a.m Monday, Eastern Standard Time, outside of the Electoral Event Calendar.	Essential	B / R2 - U
268.		Maintenance			Y		In the event of unplanned maintenance, the Contractor must obtain approval from the Contract Technical Authority on when such unplanned maintenance may occur.	Essential	B / R2 - U
269.		Maintenance			Y		If the Contractor must conduct any emergency maintenance, the Contractor must immediately notify, in Writing, the Technical Authority, who must approve the maintenance before it is conducted.	Essential	B / R2 - U
		<b>Heading</b>					<b>CAPACITY MANAGEMENT</b>		
270.		Capacity Management	Y	Y	Y	Y	The Contractor must identify, to EC, any scale or licensing limitations that may take effect during any stage of the contract or while meeting scalability and performance requirements.	Essential	B / R2 - U
271.		Capacity Management			Y		The network connection between the EC data centre and the Contractor Central Server must provide a connection capacity of 1Gbit/Sec or more.	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
		<b>Heading</b>					<b>AVAILABILITY MANAGEMENT</b>		
272.		<b>Service Continuity</b>		Y		Y	The Contractor must provide clear and reliable technology contingency solutions to ensure business continuity using technology at the Polling Places. (Contingency Planning, as per the SCP, must cover the Contractor's E-Poll Devices, the Contractor Central Server infrastructure, RO office infrastructure, and communication among them. This should be reflected in the Security Incident Response plan, as an availability emergency).	Essential	B / R2 - I
273.		<b>Availability Management</b>	Y	Y	Y	Y	Authorized users must have access to the E-Poll Solution functionality and its data at all times when they are required to do so.	Essential	B / R2 - U
274.		<b>Availability Management</b>			Y		The E-Poll Solution must throughout the Electoral Event beginning at the issue of the Writs and ending 30 calendar days after Election Day, provide 99.999% availability for the Contractor Central Server (i.e. total downtime during the Election is not to exceed 50 minutes).	Essential	B / R2 - D
275.		<b>Availability Management</b>			Y		The E-Poll Solution must, outside the Electoral Event provide 99.9% availability for the Contractor Central Server during business hours.	Essential	B / R2 - I
276.		<b>Availability Management</b>	Y				The E-Poll Device must provide a mean time between failure (MTBF) that meets or exceeds 10,000 hours (this means that when operating 60,000 units, each for 14 hours, there should be an average of 84 failed units, or less).	Essential	B / R2 - I
277.		<b>Availability Management</b>	Y	Y	Y	Y	The E-Poll Solution must, after the first Electoral Event deployment after contract award, be able to support a By-Election with up to 1500 E-Poll Devices in up to 10 EDs within ten calendar days of notice.	Essential	G / R3 - P

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
278.		Availability Management			Y		The E-Poll Solution must provide EC with the ability to archive, restore and access all information in the Contractor Central Server, without dependency on the Contractor.	Essential	B / R2 - D
279.		Availability Management			Y		The E-Poll Solution must provide the necessary services and infrastructure, including software licenses, to enable secure access to all archived and operational information for ten years after the later of the completion of the last Electoral Event in which the E-Poll Solution is used, or the end of the contract.	Essential	B / R2 - D
280.		Availability Management			Y		The E-Poll Solution must ensure that following the completion of an Electoral Event for an ED, support for a subsequent Electoral Event in the ED is available within 60 calendar days of day 0 of the previous Electoral Event for that ED.	Essential	B / R2 - D
281.		Availability Management			Y		The E-Poll Solution must support concurrent and overlapping By-Election Electoral Events occurring in different EDs with different Electoral Event Calendars (one Electoral Event at a time per ED).	Essential	B / R2 - I
282.		Availability Management			Y		The Contractor must provide EC with read-only access to all data in the Contractor Central Server. This access is required as long as there is any EC data in the Contractor Central Server.	Essential	B / R2 - I

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
		<b>Heading</b>					<b>BACKUP AND RECOVERY</b>		
<b>283.</b>		<b>Backup and Recovery</b>	Y	Y	Y	Y	The Contractor must establish the following recovery procedures: a. backup; b. disaster recovery, including whole facility failure scenarios; c. data protection; d. data retention and disposal, and e. archiving – online, near line and off line, (collectively the “recovery procedures”).	Essential	C - E
<b>284.</b>		<b>Backup and Recovery</b>			Y		The E-Poll Solution must ensure that if information is archived, the information can be restored for full access within the following schedule: a. Information for Electoral Events concluded (Day 0) within the last 6 months must not be archived and must be accessible at all times. b. Information for Electoral Events concluded (Day 0) between 6 and 12 months prior, must be restorable from archive and accessible within 24hrs c. Information for all other Electoral Events within the last 10 years, must be restorable from archive and accessible within 48hrs	Essential	C - E
<b>284.a</b>		<b>Backup and Recovery</b>			Y		The E-Poll Solution must retain in the archive of the Contractor Central Server all information collected by the E-Poll Solution including audit logs.	Essential	G / R3 - P
<b>284.b</b>		<b>Backup and Recovery</b>			Y		The E-Poll Solution must, for the duration of the archive period (10 years after the Electoral Event) be able to concurrently provide access to all past E-Poll Solution Electoral Event data for each Electoral Event in which the E-Poll Solution was used.	Essential	G / R3 - D

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
285.		Backup and Recovery			Y		The Contractor must provide an archived version of the Contractor Central Server upon completion of each Electoral Event (as requested by EC in writing).	Essential	G / R3 - P
286.		Backup and Recovery				Y	The Contractor must ensure ongoing capability for EC to be able to recover, without dependency on the Contractor, archived data from media as specified (backward compatibility of newer backup equipment or maintaining equipment in operation as of the Effective Date) by using EC provided hardware and software, or providing to EC new capability as part of the E-Poll Solution.	Essential	G / R3 - P
		<b>Heading</b>					<b>DISASTER RECOVERY</b>		
287.		Disaster Recovery			Y		The Contractor must complete a test of the Recovery Procedures every 6 months commencing on the date of the successful completion of the first pre-event Deployment Schedule for an Electoral Event. See ANNEX A - APPENDIX G – ELECTORAL EVENT DEPLOYMENT SCHEDULES.	Essential	B / R2 - I
288.		Disaster Recovery	Y	Y	Y		The Contractor must maintain, at minimum, the following recovery time objectives and the recovery point objectives for the Contractor Central Server: a. Between Electoral Event Periods, the recovery time objective is 4 hours to a recovery point within 8 hours. b. During By-Elections, excluding Polling Days, the recovery time objective is 30 minutes to a recovery point within 1 hour. c. During General Elections and Referendums, excluding Polling Days, the recovery time objective is 30 minutes to a recovery point within 30 minutes. d. On Polling Days, the recovery time objective is 5 minutes to a recovery point within 5 minutes.	Essential	B / R2 - I

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
289.		Disaster Recovery	Y	Y	Y		The Contractor must maintain the following recovery time objectives and the recovery point objectives for the E-Poll Devices: a. On Polling Days, the Recovery Time Objective is 5 minutes to a recovery point within 2 minutes.	Essential	C - E
289.a		Disaster Recovery	Y				The E-Poll Device must ensure automatic and verified backup of all data, at all times to at least one of: a. the Contractor Central Server, or b. another E-Poll Device at the Polling Place, or c. an external backup device co-located at the Polling Place.	Essential	B / R2 - U
289.b		Disaster Recovery	Y				The E-Poll Device must protect all EC data and logs generated or updated in the Polling Place from any loss.	Essential	B / R2 - U
290.		Disaster Recovery				Y	The Contractor must consistently meet or exceed EC's Service Continuity and DR Services requirements.	Essential	C - E
		<b>Heading</b>					<b>PLANNING AND ANALYSIS</b>		
291.		Planning and Analysis				Y	The Contractor must provide an integrated risk management strategy for the E-Poll Solution which: a. identifies high-risk areas and accompanying mitigation strategies for the E-Poll Solution b. considers technology problems or deployment delays that affect availability or performance of any tier of the E-Poll Solution c. describes the impact of using alternate procedures or substitute technologies d. provides a clear plan for effectively responding to software and hardware malfunctions, defects, and system outages at each severity level	Essential	C - E



Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							e. documents how problems or defects will be escalated		
292.		Planning and Analysis				Y	The Contractor must develop a Contractor Central Server scalability plan in which the Contractor describes how the E-Poll Solution will be scaled between small deployments covering one or more EDs in a By-Election and a full-scale deployment to all EDs and Polling Places in a GE, and significant tiers of deployment scale between these two extremes.	Essential	C - E
293.		Planning and Analysis				Y	The Contractor must deliver the products and services as described ANNEX A - APPENDIX F – CONTRACTOR PLAN AND DELIVERABLE SCHEDULE in accordance with the Contractor's role and responsibilities as described in ANNEX A - APPENDIX I – SERVICE MANAGEMENT.	Essential	C - E
294.		Planning and Analysis				Y	The Contractor must develop, deliver and maintain a Plan as described in ANNEX A - APPENDIX F – CONTRACTOR PLAN AND DELIVERABLE SCHEDULE.	Essential	B / R2 - U
		Heading					<b>ARCHITECTURE</b>		
295.		Technology Architecture	Y	Y	Y	Y	The Contractor must obtain Written pre-authorization from EC before using any open-source, pre-release, or free software in an Event Ready Release.	Essential	C - E
296.		Technology Architecture	Y	Y	Y	Y	The Contractor must ensure that all software, hardware, and associated documentation are used in accordance with software license agreements when operated, as designed, as part of the E-Poll Solution.	Essential	C - E

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
		<b>Heading</b>					<b>DESIGN</b>		
297.		<b>Design Specification</b>	Y	Y	Y		The Contractor must provide detailed technical documentation, i.e. a data dictionary, that provides: <ul style="list-style-type: none"> <li>a. Definitions of data entities and relationships between these entities as stored within the Contractor Central Server and on E-Poll Devices.</li> <li>b. Data access methods and procedures to view the data content stored within the Contractor Central Server and on E-Poll Devices.</li> </ul>	Essential	B / R2 - U
		<b>Heading</b>					<b>INTEGRATION AND TESTING</b>		
298.		<b>Integration and Testing</b>	Y	Y	Y	Y	The E-Poll Solution should support testing, debugging, and Polling Place user support, whenever connectivity permits, when an E-Poll Device hits a system error or non-business application error (bug), uploads an error report to the Contractor Central Server (logged separately from business operations).	Med	G / R3 - U
299.		<b>Integration and Testing</b>	Y	Y	Y	Y	The E-Poll Solution must include all infrastructure to support each type of testing for which the Contractor is responsible as defined ANNEX A – APPENDIX I.1 –Product Development Lifecycle (PDLC) Services, including a complete pre-production test environment which is technically identical in specification to the production environment.	Essential	B / R2 - I
300.		<b>Integration and Testing</b>	Y	Y	Y	Y	The Contractor must provide Testing Services as defined in ANNEX A – APPENDIX I.1 –Product Development Lifecycle (PDLC) Services which include at minimum: <ul style="list-style-type: none"> <li>a) confirm component and E-Poll Solution compliance with all contracted requirements as identified in this SOW, and as reflected in the UAT for each release.</li> <li>b) identify the behaviour of infrastructure components;</li> </ul>	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							c) emulate production loads; d) determine efficiency under peak load; e) measure system overheads; f) identify bottlenecks such as network, memory and deadlocks; g) determine overload (break-point, failure) conditions; h) validate that the configuration is capable of holding, managing and processing the required volumes of data; and i) measure the performance characteristics of the E-Poll Solution or any of its parts.		
301.		Integration and Testing				Y	For each Test performed by the Contractor on an Event Ready Release, the Contractor must provide an Acceptance Test report detailing the results of all tests performed for the Release by the Contractor.	Essential	B / R2 - U
		Heading					<b>TRAINING</b>		
302.		Training - EO	Y	Y			The E-Poll Device must provide a training mode which can be used to train EOs on E-Poll Device functions used in normal operations to serve Electors and to perform post-polling counting and reporting exercises.	Essential	G / R3 - I
303.		Training - EO	Y	Y			The E-Poll Device should accept any values for EO credentials to access the training mode.	Low	G / R3 - I
304.		Training - EO	Y	Y	Y		The E-Poll Solution should support an EC defined set of training data, provided through the same API as operational data, but in a separate configuration environment used for this purpose.	High	G / R3 - I
305.		Training - EO	Y				The E-Poll Device must provide the ability for an EO to perform a reset to restore training data back to an initial state enabling the training scenarios to be performed again.	Essential	G / R3 - I

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
306.		Training - EO	Y	Y			The E-Poll Device should support activation of training mode at any time, including during polling operation.	Med	G / R3 - I
307.		Training - EO	Y	Y			The E-Poll Device must provide a clear visual indication when the application is operating in training mode.	Essential	G / R3 - I
308.		Training - EO	Y	Y			The E-Poll Device should provide the ability for an EO to perform all operations in the training mode with pop-up guidance to assist in learning.	Med	G / R3 - I
309.		Training - EO	Y	Y			The E-Poll Device should, in the operational mode and training mode, provide the ability for EOs to toggle on and off pop-up guidance.	Low	G / R3 - I
310.		Training - EO	Y				The E-Poll Device should provide the ability to select from a menu and play topic based EC training videos.	Med	G / R3 - I
311.		Training - EO	Y				The E-Poll Device should provide the ability to select from a menu and access locally stored training manuals and other assistive products.	High	G / R3 - I
312.		Training - RO AC	Y	Y	Y		The Contractor must define procedures and provide them with training materials and operational aids for RO staff and EOs hired and trained at the ORO, to load requisite ED and Electoral Event specific data to the E-Poll Devices and prepare them for use at the Polling Place.	Essential	G / R3 - I
313.		Training - RO AC	Y	Y	Y		The E-Poll Solution must provide all necessary training materials to support training of a person with basic computer skills (an AC), within a one day training session (7.5 hours), the information and procedures to implement the method as described in the previous requirement and to operate to the E-Poll Devices in compliance with these requirements.	Essential	G / R3 - I

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
314.		Training - RO AC	Y	Y	Y		The E-Poll Solution must provide all necessary training materials to support training of the AC, within a one day training session (7.5 hours), the information and procedures to implement the method in the previous requirement to upload all information resulting from operation of the E-Poll Devices at the polls from the E-Poll Devices to the Contractor Central Server in compliance with these requirements, and remove all EC data from the device.	Essential	G / R3 - I
315.		Training and Knowledge Transfer			Y		The E-Poll Solution must provide procedures and training to install, restore and operate all Contractor Central Server solution components necessary to enable EC to be self-sufficient in restoring and accessing information archived from prior Electoral Events.	Essential	G / R3 - I
316.		Training and Knowledge Transfer	Y		Y		The E-Poll Solution must provide training to EC staff on proper use of audit tools and procedures for both the Contractor Central Server and the E-Poll Devices to enable EC to access audit logs for all E-Poll Solution components.	Essential	B / R2 - D
317.		Training and Knowledge Transfer	Y	Y	Y	Y	The E-Poll Solution must provide training in the correct application of the Contractor's security policy and procedures for the proper operation of all E-Poll Solution components in a manner that meets or exceeds the security requirements of the E-Poll Solution.	Essential	B / R2 - D
318.		Training and Knowledge Transfer	Y	Y	Y	Y	The Contractor must provide to EC, for its own use, the explicit written rights to reproduce, use, publish and/or adapt all E-Poll Solution user and operator documentation and training materials delivered under this SOW.	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
318.a		Training and Knowledge Transfer	Y	Y	Y	Y	The E-Poll Solution should provide training emulators or other online training modules that EC can use to facilitate the training of EOs.	Med	G / R3 - I
319.		Training and Knowledge Transfer				Y	The Contractor must provide training of the Contractor's staff for the improvement of skills through education and instruction.	Essential	G / R3 - I
320.		Training and Knowledge Transfer				Y	The Contractor must participate in any initial and ongoing training delivered by EC, as required, that would provide a learning opportunity about EC's business and technical environment.	Essential	G / R3 - I
321.		Training and Knowledge Transfer				Y	The Contractor must provide training for EC technical staff for the express purpose of exploiting the functions and features of the E-Poll Solution and provision of EC services. Delivery methods may include classroom style, computer based, individual or other appropriate means of instruction.	Essential	G / R3 - I
		<b>Heading</b>					<b>CHANGE MANAGEMENT</b>		
322.		Configuration Management	Y				The Contractor must implement a product development life cycle which provides auditable configuration management which identifies with each product version the set of enhancements, corrected deficiencies, known issues, and approved versions of supporting hardware, operating system, training, maintenance and other materials to be used with the release.	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
323.		Configuration Management				Y	For every Event Ready release of the E-Poll Solution submitted to EC by the Contractor for testing, the Contractor must include a Release Document which fully describes the configuration of the release and which includes: a. Release description; b. The list of Requests for Change implemented; c. The list of Task Authorizations implemented; d. The list of known bugs; e. The version of each E-Poll Solution component comprising the release, including all documents (designs, specifications, manuals, training materials, etc.). f. Release testing notes identifying the details of the testing that the Contractor has completed.	Essential	B / R2 - U
324.		Change Management	Y	Y	Y	Y	The E-Poll Solution must implement a product development life cycle which provides an auditable record of deficiencies, corrective actions, testing and verification of deficiency resolution.	Essential	B / R2 - U
325.		Change Management	Y	Y	Y	Y	The Contractor must manage changes and corrective actions in relation to all E-Poll Solution components in accordance with the roles and responsibilities described in ANNEX A - APPENDIX I – SERVICE MANAGEMENT.	Essential	B / R2 - U
326.		Change Management	Y	Y	Y	Y	The Contractor must assess the risks associated with any changes and corrective actions in relation to the E-Poll Solution and for sharing all details with EC in accordance with the roles and responsibilities described in ANNEX A - APPENDIX I – SERVICE MANAGEMENT and in a manner compliant with ANNEX A – APPENDIX E.9 –SECURITY REQUIREMENTS.	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
327.		Change Management			Y		In the event that the Contractor intends to change its Contractor Central Server infrastructure or any part thereof that may in any way impact the E-Poll services (the “Proposed Changes”), it must provide Written notice of its intention fifteen (15) Business Days prior to the implementation date of the Proposed Changes to the Technical Authority (the “Proposed Change Notice”).	Essential	B / R2 - U
327.a		Change Management			Y		All potential changes to the Contractor Central Service Infrastructure, or any part thereof, that may in anyway impact the E-Poll services (The “Proposed Changes”), where the Contractor has provided notice in accordance with requirement 327, must be approved in writing by EC prior to implementing the “Proposed Changes”.	Essential	B / R2 - U
327.b		Change Management			Y		The Proposed Change Notice must describe the Proposed Changes in sufficient details to permit the Technical Authority to evaluate whether or not the Proposed Changes would impact EC business use and operation of the E-Poll Solution. If EC determines that the Proposed Changes may have an impact on its use or operation of the E-Poll Solution, it shall notify the Contractor in writing of such impact. The Contractor must make the required modifications to the Proposed Changes, in order to ensure that they do not impact the use or operation of the E-Poll Solution.	Essential	B / R2 - U
327.c		Change Management			Y		The Contractor must not implement the Proposed Changes or the modified Proposed Changes until approval is obtained from the Technical Authority.	Essential	B / R2 - U
327.d		Change Management			Y		Regardless of the acceptance of the Proposed Changes by EC, the Contractor must comply with its obligations set-out in this SOW.	Essential	B / R2 - U



Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
328.		Problem Management				Y	The Contractor must provide Problem Management Services for all identified problems that are determined to be related to IT systems and services under the control of the Contractor.	Essential	B / R2 - U
328.a.		Problem Management				Y	The Contractor must also provide coordination and assistance to EC and EC's Third Party Contractor's such as those that host EC's data centre in performing their Problem Management process.	Essential	B / R2 - U
		Heading					<b>PERFORMANCE MANAGEMENT</b>		
329.		Performance Management	Y	Y	Y	Y	All E-Poll Solution components must support an average user wait time for a visible interaction with the E-Poll Solution component below 1 second.	Essential	G / R3 - U
330.		Performance Management	Y	Y	Y	Y	All E-Poll Solution components must not exceed a maximum user wait time for a visible interaction with the E-Poll Solution component of more than 3 seconds. (based on one average ED of data – approximately 150,000 Elector test data records as provided by EC).	Essential	G / R3 - U
331.		Performance Management	Y		Y		The E-Poll Solution must support up to 30 concurrent E-Poll Devices performing poll operation functions at each Polling Place.	Essential	B / R2 - U
332.		Performance Management	Y		Y		The E-Poll Solution must support a minimum rate of processing of two complete, from beginning to the end, voter transactions per minute per E-Poll Device per Polling Place (i.e. a throughput of 60 Electors per minute or one Elector per second in a Polling Place with 30 Service Points).	Essential	G / R3 - U
333.		Performance Management	Y				E-Poll Solution hardware and software must support the ability for an EO to consistently obtain a successful scan of a barcode in under 3 seconds.	Essential	G / R3 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
334.		Performance Management			Y		Content and format of all data being exchanged between the Contractor Central Server and the EC data centre should be optimized for performance.	High	G / R3 - U
335.		Performance Management			Y		The network connection between the EC data centre and the Contractor Central Server must have a rate of packet loss of 0.04% or less.	Essential	G / R3 - U
336.		Performance Management			Y		The network connection between the EC data centre and the Contractor Central Server must provide transmission delay on the MPLS circuit (i.e. latency) of 20 milliseconds or less on all received valid packets.	Essential	G / R3 - U
337.		Performance Management			Y		The network connection between the EC data centre and the Contractor Central Server must provide failover time of less than 50 milliseconds to restore MPLS service.	Essential	G / R3 - U
338.		Performance Management	Y	Y	Y	Y	The Contractor must proactively monitor E-Poll Solution components, to detect and correct faults and, using trend analysis of incidents across time, to reduce the number of instances of performance degradation and corrective maintenance in accordance with the roles and responsibilities described in ANNEX A - APPENDIX I – SERVICE MANAGEMENT.	Essential	G / R3 - U
339.		Performance Management			Y		Notwithstanding the Technical Authority’s approval of any scheduled, unscheduled or emergency maintenance, the Contractor must maintain the established uptime requirements set out in the Service Level Requirements.	Essential	G / R3 - U
		<b>Heading</b>					<b>SERVICE DESK</b>		
340.		Service Desk				Y	Starting at the effective date, and for the duration of the contract, the Contractor must provide all necessary resources and staff to operate a Service Desk in accordance with this SOW for the centralized monitoring and resolution of EC E-Poll Incidents as described in	Essential	C - E

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							ANNEX A - APPENDIX I – SERVICE MANAGEMENT.		
341.		Service Desk				Y	The Contractor must have Service Desk support processes defined and practiced; including incident management, problem management, change management and escalation process.	Essential	C - E
342.		Service Desk				Y	The Contractor Service Desk must coordinate incident response in close coordination with EC and act as a point of contact for communications with EC representatives for incidents.	Essential	C - E
343.		Service Desk				Y	The Contractor must ensure that the Service Desk can respond to networking, hardware, software, database and security management Support Requests pertaining to the Contractor Central Server, all RO (and AARO) office components, E-Poll Devices and procedures which constitute the E-Poll Solution.	Essential	C - E
344.		Service Desk				Y	The Contractor must initiate a Support Request through the Service Desk when it identifies any failure or deficiency, and treat such Support Request in the same manner as if it would have been initiated by EC. The Contractor must send an acknowledgment to the Technical Authority within 5 minutes of initiating the Support Request.	Essential	C - E
345.		Service Desk				Y	The Contractor Service Desk must include a unique and dedicated telephone number, answered using both Official Languages of Canada (French, English) as requested by the caller, available: <ul style="list-style-type: none"> <li>a. during Electoral Events, 24 hours per day, 7 days per week</li> <li>b. outside Electoral Events, on Business Days between 8:00am and 4:00pm EST.</li> </ul>	Essential	C - E

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
346.		Service Desk				Y	The Contractor must notify EC if Contractor Service Desk is not available and provide the name of a person with whom EC can communicate as necessary during the Contractor Service Desk outage: a. during Electoral Event Periods, within 15 minutes, or b. outside Electoral Event Periods, within one Business Day.	Essential	C - E
		Heading					<b>SECURITY</b>		
348.		Security	Y				The E-Poll Device must prevent EOs from browsing the Internet or accessing any other device from the E-Poll Device except as expressly intended in these requirements or elsewhere in the SOW.	Essential	B / R2 - U
348.a		Security	Y				The E-Poll Device must allow EOs to access pre-approved websites when there is network connectivity.	Essential	B / R2 - U
349.		Security	Y				When the device is powered on, the E-Poll Device must directly initiate the Contractor application software, providing no access to the device operating system or operating system functions.	High	G / R3 - U
350.		Security	Y				Upon successful login by the EOs the E-Poll Device must display a privacy message screen which must: a) display a configurable privacy message which will be provided by EC b) the privacy message must be displayed in both Official Languages (English and French) c) the privacy message must require acknowledgement by the EO	Essential	B / R2 - U
352.		RO AC	Y	Y	Y		The E-Poll Solution must provide a Barrier Message which prevents any EC data from being loaded to a Contractor's product for another Contractor customer,	Essential	B / R2 - U

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							or any other Contractor product, which was not authorized by EC to accept EC data load.		
353.		RO AC	Y	Y	Y		The E-Poll Solution must provide a Barrier Message which prevents any non-EC provided data from being loaded to a Contractor's product which is authorized by EC to accept EC data load.	Essential	B / R2 - U
354.		Security	Y	Y	Y	Y	All protected data, on every Contractor device deployed in relation to this contract, must be purged once the device is decommissioned. This must be done in a way that is compliant with CSE policies (TSCG L/G and ITSG-06: Clearing and Declassifying Electronic Data Storage Devices).	Essential	C - E
355.		Security				Y	The Contractor must immediately notify EC if it experiences any security, network or privacy breaches, throughout the Contract Term, to any implementations, modifications or variations of the E-Poll Solution, or to any part of the Contractor's infrastructure that is related to these implementations.	Essential	C - E
356.		Security Operations Centre				Y	The Contractor must provide a SOC with the infrastructure and resources required for the centralized monitoring and resolution of EC E-Poll Solution security incidents.	Essential	C - E
357.		Security Operations Centre				Y	The Contractor SOC must coordinate security incident response in close coordination with EC and act as a point of contact for communications with EC representatives for security incidents.	Essential	C - E
358.		Security Operations Centre				Y	The Contractor SOC must include a unique and dedicated telephone number, answered using the Official Languages of Canada (French, English) as	Essential	C - E

Req ID	Part	Type	Req Scope				Requirement	Importance	Release and Milestone
			PP	RO	CCS	IS			
							requested by the caller, available: a. during Electoral Event Periods, 24 hours per day, 7 days per week b. outside Electoral Event Periods, on Business Days between 8:00am and 4:00pm EST.		
359.		Security Operations Centre				Y	The Contractor must notify EC if Contractor SOC is not available and provide the name of a person with whom EC can communicate as necessary during the Contractor SOC outage: a. during Electoral Event Periods, within 15 minutes, or b. outside Electoral Event Periods, within one Business Day.	Essential	C - E

## **ANNEX A – APPENDIX E.1 – EC Address Type Definitions**

### **20. EC ADDRESS SPECIFICATIONS**

This section provides technical specifications of address formats supported by the E-Poll Solution. There are fundamentally two purposes for which addresses are collected:

1. Residential addresses are collected to identify the location on a map where an Elector physically resides to determine in which ED and Polling Division the Elector resides, and therefore in which Polling Place they may vote.
2. Mailing addresses are primarily used to correspond with candidates and EOs or to deliver voter information to Electors, most notably the times and places to vote corresponding to a residential address.

Most urban Electors have a residential address which is identical to their mailing address. Many rural Electors have mailing addresses that differ from their physical residential address, the mailing address corresponding to a mail delivery route or post office box, and the physical address corresponding to a system which parcels land. Mailing addresses are governed by Canada Post Corporation (CPC) and are highly structured. The physical residential addresses vary in form across Canada, but there are two distinct patterns which apply to many such situations: section, township, range, meridian (STRM) addresses, and lot, concession (L/C) addresses. EC calls CPC mailing addresses (including civic, post office box and general delivery addresses), STRM and L/C addresses "conforming" addresses because they conform to identifiable structured patterns. All other physical residential addresses fall into a category EC calls "non-conforming".

#### **20.01. Residential Addresses**

In this section, the "\*" denotes a field for which EC will be providing unique identifiers (primary keys) and requires the Contractor to make all references to this data using EC's unique identifiers.

*Residential – Civic (aka Street)*

Example:

B-123 ½ Main Street East  
Ottawa, Ontario K1T 1L3

Field Name	Data Type, Max Length	Valid Values	Required
Address Type	Text, 2	1 (Residential – Civic)	Y *
Civic Number	Text, 6	Numeric	Y
Suffix	Text, 1	¼, ½, ¾, A, ..., Z	N
Unit/Suite/Apt.	Text, 6	Alpha-numeric	N
Street Name	Text, 50	Alpha-numeric	Y *
Street Type	Abrv: Text, 6 Desc: Text, 100	170 valid types Specific to street language	N *
Street Direction	Abrv: Text, 20 Desc: Text, 100	11 valid types Specific to street language	N *
Municipality	Text, 100	Alpha-numeric	Y *
Municipality Type	Abrv: Text, 20 Desc: Text, 100	33 valid types Borough, City, Community, Canton, District municipality...	N *
Postal Code	Text, 6	AnAnAn (e.g. K1A 0M6) Province-specific	Y
Province	Code: Text, 2	AB, BC, MB, NB, NL, NS, NT, NU, ON, PE, QC, SK, YT	Y *

### 20.01.01 Residential – Lot and Concession

The L/C residential address type is only used in Ontario.

Land is planned in squares, where each square has a Lot number and Concession number, like coordinates.

L/C addresses have no postal codes.

People living at L/C addresses have separate mailing addresses.

Example:

Lot 11, Concession 5  
Owen Sound, Ontario



Field Name	Data Type, Max Length	Valid Values	Required
Address Type	Text, 2	2 (Residential – L&C)	Y *
Lot	Text, 4	Alpha-numeric, English characters only	Y
Concession	Text, 4	Alpha-numeric, English characters only	Y
Township	Text, 100	Alpha-numeric	Y *
Municipality Type	Abrv: Text, 20 Desc: Text, 100	Geo Township (63)	Y *
Province	Code: Text, 2	ON	Y *

**20.01.02 Residential – Section Township Range Meridian (STRM)**

The STRM residential address type is used in some provinces only (BC, AB, SK, MB)..

- It uses something similar to latitude and longitude
- STRM addresses have no postal codes
- People living at STRM addresses have separate mailing addresses.

Example:

Section SW29, Township 30, Range 19, Meridian W4  
 Alberta

Field Name	Data Type, Max Length	Valid Values	Required
Address Type	Text, 2	5 (Residential – STRM)	Y *
Quarter	Text, 5	N, W, S, E, NE, NW, SE, SW	N
Section	(Quarter + Section)	01, ..., 36	Y
Township	Text, 4	01, ..., 19, 19A, 20, ..., 27, 27A, 28, ..., 42, 42A, 43, 43A, 44,	Y

Field Name	Data Type, Max Length	Valid Values	Required
		45, 45A, 46, 46A, 47, 47A, 48, ..., 126	
Range	Text, 3	01, ..., 13, 13A, 14, ..., 21, 21A, 22, 23, 24, 24A, 25, ...,29, 29A, 30, ...,34	Y
Meridian	Text, 2	E1, W1, W2, W3, W4, W5, W6	Y
Province	Code: Text, 2	BC, AB, SK, MB	Y *

### 20.01.03 Residential – I - Non-Conforming

This is a type of addressing that does not follow any standard, mainly for remote rural areas. It does have minimum required fields.

It can also contain portions of a civic address.

Example:

Stephenville, NL

Field Name	Data Type, Max Length	Valid Values	Required
Address Type	Text, 2	3 (Residential – NC)	Y *
Municipality	Text, 100	Alpha-numeric	Y *
Municipality Type	Code: Text, 20 Desc: Text, 100	33 valid types (PLACT_TYPE table) Borough, City, Community, Canton, District municipality,...	N *
Postal Code	Text, 6	AnAnAn, Province-specific	N
Province	Code: Text, 2	AB, BC, MB, NB, NL, NS, NT, NU, ON, PE, QC, SK, YT	Y *

**20.02. Mailing Addresses**

In this section, the “\*” denotes a field for which EC will be providing unique identifiers (primary keys) and requires the Contractor to make all references to this data using EC’s unique identifiers. “\*\*” indicates that the ‘Postal Station Type’ value is optional; it becomes required only when a ‘Postal Station Name’ value is provided.

**20.02.01 Mailing – Civic (aka Street)**

Example:  
 B-123 ½ Main Street East  
 Ottawa, Ontario K1T 1L3

Field Name	Data Type, Max Length	Valid Values	Required
Address Type	Text, 2	10 (Mailing – Civic)	Y *
<i>Same remaining fields in the residential Civic address</i>			

**20.02.02 Mailing – Post Office Box (aka Lock Box)**

This is a mail box identifier typically used for CPC postal stations and commercial mail services.

Example:  
 PO Box 1901  
 RPO Shoppers Drug Mart  
 Gloucester, ONT K1T 0L2

Field Name	Data Type, Max Length	Valid Values	Required
Address Type	Text, 2	30 (Mailing – PO Box)	Y *
PO Box Number	Text, 5	Numeric	Y

Field Name	Data Type, Max Length	Valid Values	Required
Additional Delivery Information	Text, 250	Alpha-numeric	N
Postal Station Type	Code: Text, 5 Desc: Text, 100	12 valid types BDP, CC, CDO, CMC, CPC, CSP, LCD, PDF, PO, RPO, STN, SUCC	N * **
Postal Station Name	Text, 15	Alpha-numeric	N
Municipality	Text, 100	Alpha-numeric	Y *
Postal Code	Text, 6	AnAnAn, Province-specific	Y
Province	Code: Text, 2	AB, BC, MB, NB, NL, NS, NT, NU, ON, PE, QC, SK, YT	Y *

**20.02.03 Mailing – Mobile Route (MR)/Rural Route (RR)/Suburban Service (SS)**

MR, RR and SS mailing address types are very similar in format and content.

Examples:

SS

Inside Wonder Mall, Canning Road  
 Site 6, COMP 11, Group 24, Box, SS# 10  
 CC Anna’s Sweets Shop, Kingston, Ontario K1C 4M3

RR

Inside Wonder Mall, Canning Road  
 Site 6, COMP 11, Group 24, Box, RR# 10  
 CPC Comm Post Office, Kingston, Ontario K1C 4M3

MR

Delivery by Route 24  
 Site 6, COMP 11, Group 24, Box, MR# 10

STN Quickie, Kingston, Ontario K1C 4M3

Field Name	Data Type, Max Length	Valid Values	Required
Address Type	Text, 2	42 (Mailing – MR), 43 (Mailing – RR), 44 (Mailing – SS)	Y *
Additional Delivery Information	Text, 250	Alpha-numeric	N
Site	Text, 15	Alpha-numeric	N
Compartment	Text, 15	Alpha-numeric	N
Group	Text, 15	Alpha-numeric	N
Box	Text, 15	Alpha-numeric	N
MR# / RR# / SS#	Text, 6	Alpha-numeric	Y
Postal Station Type	Code: Text, 5 Desc: Text, 100	12 valid types BDP, CC, CDO, CMC, CPC, CSP, LCD, PDF, PO, RPO, STN, SUCC	N * **
Postal Station Name	Text, 15	Alpha-numeric	N
Municipality	Text, 100	Alpha-numeric	Y *
Postal Code	Text, 6	AnAnAn, Province-specific	Y
Province	Code: Text, 2	AB, BC, MB, NB, NL, NS, NT, NU, ON, PE, QC, SK, YT	Y *

**20.02.04 Mailing – General Delivery**

Example:

GD  
 10 Downing Street, Main Floor  
 STN A, Ingersoll, Alberta T8N 1H4

Field Name	Data Type, Max Length	Valid Values	Required
Address Type	Text, 2	50 (Mailing – GD)	Y *
Additional Delivery Information	Text, 250	Alpha-numeric	N
Postal Station Type	Code: Text, 5 Desc: Text, 100	12 valid types BDP, CC, CDO, CMC, CPC, CSP, LCD, PDF, PO, RPO, STN, SUCC	N * **
Postal Station Name	Text, 15	Alpha-numeric	N
Municipality	Text, 100	Alpha-numeric	Y *
Postal Code	Text, 6	AnAnAn, Province-specific	Y
Province	Code: Text, 2	AB, BC, MB, NB, NL, NS, NT, NU, ON, PE, QC, SK, YT	Y *

**ANNEX A – APPENDIX E.2 – Specification for Poll Book entries**

**21. INFORMATION DISPLAYED AND CAPTURED FOR POLL BOOK ENTRIES**

In the table that follows, note that the for all poll book entries which pertain to a specific record, a link to the elector record (on the list of electors, a registration certificate or a transfer certificate) includes a link to whether or not the elector was struck. This information must be reported with poll book entries whenever applicable.

EO Activity ID	EO Activity	Triggering Condition	Information to be displayed or captured on the E-Poll Device	Information to be recorded in the E-Poll Book entry
1.	Administer verbal Oath  (Oath of qualification)  (s. 144)	A Candidate, Candidate Representative, or EO has reasonable doubts concerning an Elector’s qualification to vote: age or citizenship. The challenge relates to whether the Elector may vote.	<ul style="list-style-type: none"> <li>• Elector's name</li> <li>• Elector's residential address</li> <li>• Elector's list sequence no. (if on the list)</li> <li>• Elector’s PD</li> <li>• The wording of the Oath</li> <li>• A checkbox to indicate the Oath has been taken</li> </ul>	<ul style="list-style-type: none"> <li>• The triggering condition type – reason for the entry</li> <li>• A link to the Elector on the list or link to the Registration, or link the Transfer Certificate.</li> </ul> <p>AND:</p> <ul style="list-style-type: none"> <li>○ The checkbox value which indicates the Oath has been taken</li> <li>OR</li> <li>○ An image of the displayed screen once the checkbox is checked.</li> </ul>

EO Activity ID	EO Activity	Triggering Condition	Information to be displayed or captured on the E-Poll Device	Information to be recorded in the E-Poll Book entry
2.	Administer a verbal Oath (When ID matches the list)  (ss. 143 (3.2))	A Candidate, Candidate Representative, or EO has reasonable doubts concerning an Elector's residence where the Elector has ID with mailing address.	<ul style="list-style-type: none"> <li>• Elector's name</li> <li>• Elector's residential address</li> <li>• Elector's list sequence no.</li> <li>• Elector's PD</li> <li>• The wording of the Oath</li> <li>• A checkbox to indicate the Oath has been taken</li> </ul>	<ul style="list-style-type: none"> <li>• The triggering condition type – reason for the entry</li> <li>• A link to the Elector on the list</li> </ul> <p>AND:</p> <ul style="list-style-type: none"> <li>○ The checkbox value which indicates the Oath has been taken</li> <li>OR</li> <li>○ An image of the displayed screen once the checkbox is checked.</li> </ul>
3.	Administer a verbal Oath (Person helping an Elector)  (s. 155)	An Elector requests assistance from a relative or friend to mark their ballot.	<ul style="list-style-type: none"> <li>• Elector's name</li> <li>• Elector's residential Address</li> <li>• Elector's list sequence no. (if on the list)</li> <li>• Elector's PD</li> <li>• Assisting person's name</li> <li>• The wording of the Oath</li> <li>• A checkbox to indicate the Oath has been taken</li> </ul>	<ul style="list-style-type: none"> <li>• The triggering condition type – reason for the entry</li> <li>• A link to the Elector on the list, or link to the Registration, or link to the Transfer Certificate.</li> </ul> <p>AND:</p> <ul style="list-style-type: none"> <li>○ The checkbox value which indicates the Oath has been taken</li> <li>OR</li> <li>○ An image of the displayed screen once the checkbox is checked.</li> </ul>



EO Activity ID	EO Activity	Triggering Condition	Information to be displayed or captured on the E-Poll Device	Information to be recorded in the E-Poll Book entry
4.	Administer a verbal Oath:  (Interpreter)  (s. 156)	An Elector requests assistance from a language or sign-language interpreter	<ul style="list-style-type: none"> <li>• Interpreter's name</li> <li>• Interpreter's residential address</li> <li>• The wording of the Oath</li> <li>• A checkbox to indicate the Oath has been taken</li> </ul>	<ul style="list-style-type: none"> <li>• The triggering condition type – reason for the entry</li> <li>• A link to the Elector on the list, or link to the Registration, or link to the Transfer Certificate.</li> </ul> <p>AND:</p> <ul style="list-style-type: none"> <li>○ The checkbox value which indicates the Oath has been taken</li> <li>○ Interpreter's name</li> <li>○ Interpreter's residential address</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>○ An image of the displayed screen once the checkbox is checked.</li> </ul>

EO Activity ID	EO Activity	Triggering Condition	Information to be displayed or captured on the E-Poll Device	Information to be recorded in the E-Poll Book entry
5.	<p>Capture a verbal Oath of correction                      (Differs from list, i.e. Correction Certificate)                      (s. 146)</p>	<p>The Elector's name and address information on the list corresponds closely (but differs) from what appears on their ID documents and the EO decides the Elector must take an Oath to vote</p>	<ul style="list-style-type: none"> <li>• Corrected Information:                             <ul style="list-style-type: none"> <li>○ Elector's name</li> <li>○ Elector's current residential address</li> <li>○ Elector's mailing address</li> </ul> </li> <li>• The wording of the Oath</li> <li>• A checkbox to indicate the Oath was taken and that the Elector has affirmed/sworn the information to be correct.</li> </ul>	<ul style="list-style-type: none"> <li>• The triggering condition type – reason for the entry</li> <li>• A link to the Elector on the list</li> <li>• The checkbox value which indicates the Elector has taken the Oath.</li> <li>• Corrected information for any or all of the following:                             <ul style="list-style-type: none"> <li>○ Elector's family name and given name(s)</li> <li>○ Date of birth</li> <li>○ Gender</li> <li>○ Elector's current residential address</li> <li>○ Essential Elector's mailing address</li> </ul> </li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>○ An image of the displayed screen including all corrected information once the Electronic Signature is complete.</li> </ul>
6.	<p>Administer a signed Oath                      (Crossed off as voted in error)                      (s. 147 and s. 148)</p>	<p>The Elector's record on the list indicates that they have voted, and the Elector claims that this is in error.</p>	<ul style="list-style-type: none"> <li>• Elector's name</li> <li>• Elector's residential address</li> <li>• Elector's list sequence no</li> <li>• The wording of the Oath</li> <li>• An Electronic Signature indicating the written Oath has been taken</li> <li>• A checkbox to indicate the elector has voted.</li> </ul>	<ul style="list-style-type: none"> <li>• The triggering condition type – reason for the entry</li> <li>• A link to the Elector on the list</li> <li>• An Electronic Signature.</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• An image of the displayed screen once the Electronic Signature is complete.</li> </ul>

EO Activity ID	EO Activity	Triggering Condition	Information to be displayed or captured on the E-Poll Device	Information to be recorded in the E-Poll Book entry
7.	Administer signed Oaths of Attestation of Residence (ss. 143(3))	An Elector who has two ID documents with their name but none with residential address requests that another Elector attest to their residential address.	<ul style="list-style-type: none"> <li>• Elector's Name</li> <li>• Elector's residential address</li> <li>• Elector's list sequence no. (if on the list)</li> <li>• Elector's PD</li> <li>• The wording of the Elector's Oath</li> <li>• An Electronic Signature indicating the written Oath has been taken</li> <li>• AND (may be on a separate screen):</li> <li>• Attesting Elector's name</li> <li>• Attesting Elector's residential address</li> <li>• Attesting Elector PD and Sequence no.</li> <li>• The wording of the attester's Oath</li> <li>• An Electronic Signature indicating the written Oath has been taken</li> </ul>	<ul style="list-style-type: none"> <li>• The triggering condition type – reason for the entry</li> <li>• A link to the Elector on the list, or link to the Registration, or link the Transfer Certificate.</li> </ul> <p>AND:</p> <ul style="list-style-type: none"> <li>○ An Electronic Signature for the Elector.</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>○ An image of the displayed screen once the Elector's Electronic Signature is complete.</li> </ul> <p>AND:</p> <ul style="list-style-type: none"> <li>○ An Electronic Signature for the attester.</li> <li>○ A link to the Attesting Elector on the list, or link to the Registration.</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>○ An image of the displayed screen once the attester's Electronic Signature is complete.</li> </ul>

EO Activity ID	EO Activity	Triggering Condition	Information to be displayed or captured on the E-Poll Device	Information to be recorded in the E-Poll Book entry
8.	Register an Elector (i.e. Registration Certificate) (s. 161 and s. 169)	An Elector is not on the List of Electors for the Polling Division he wishes to vote at, but has acceptable proof of identity and residence to vote.	<ul style="list-style-type: none"> <li>• Elector's name</li> <li>• Date of birth</li> <li>• Gender</li> <li>• for By-Elections only, the date when the Elector began to reside in the ED</li> <li>• Elector's current residential address</li> <li>• Elector's mailing address (if different from residential address)</li> <li>• Elector's previous residential address (optional)</li> <li>• ED and PD</li> <li>• A checkbox indicating the Elector does not wish to be added to the National Register Of Electors – opt out (default inclusion in Register if unchecked).</li> <li>• The wording of the Elector's declaration regarding qualification and not voting twice</li> <li>• An Electronic Signature indicating the declaration has been made.</li> <li>• A check box to indicate the Elector has been issued a ballot.</li> <li>• A check box to indicate that the Elector has returned their ballot.</li> </ul>	<ul style="list-style-type: none"> <li>• The triggering condition type – reason for the entry</li> <li>• A link to the Elector Registration</li> </ul> AND: <ul style="list-style-type: none"> <li>○ An Electronic Signature.</li> </ul> OR <ul style="list-style-type: none"> <li>○ An image of the displayed screen once the Electronic Signature is complete.</li> </ul>

EO Activity ID	EO Activity	Triggering Condition	Information to be displayed or captured on the E-Poll Device	Information to be recorded in the E-Poll Book entry
9.	Make a Poll Book entry (Elector refuses an Oath) (s. 148.1)	An Elector refuses to take an Oath when requested to do so, including the final decision of the RO, if applicable, is that the Oath is required for the Elector to vote.	<ul style="list-style-type: none"> <li>• Elector's name</li> <li>• Elector's residential address</li> <li>• Elector's list sequence no. (if on the list)</li> <li>• The reason for refusing to take the Oath and type of oath that was refused</li> <li>• A checkbox to indicate the Oath was refused.</li> </ul>	<ul style="list-style-type: none"> <li>• The triggering condition type – reason for the entry</li> <li>• A link to the Elector on the list, or link to the Registration, or link the Transfer Certificate.</li> <li>• The triggering condition type – reason for refusing to take the Oath and type of oath that was refused</li> </ul> AND: <ul style="list-style-type: none"> <li>○ The checkbox value which indicates the Oath was refused</li> </ul> OR <ul style="list-style-type: none"> <li>○ An image of the displayed screen once the checkbox is checked.</li> </ul>

EO Activity ID	EO Activity	Triggering Condition	Information to be displayed or captured on the E-Poll Device	Information to be recorded in the E-Poll Book entry
10.	Make a Poll Book entry (notable event)	An event occurs which affects operation of the Service Point or entire Polling Place (e.g. there is a fire alarm).	<ul style="list-style-type: none"> <li>• Names and addresses of one or more people involved.</li> <li>• A description of the event</li> <li>• A Yes/No option to record whether an EO called the RO</li> <li>• A Yes/No option to record whether the RO asked anyone to complete an Incident Report.</li> </ul>	<ul style="list-style-type: none"> <li>• The triggering condition type – reason for the entry</li> <li>• Names and addresses of one or more people involved.</li> <li>• A description of the event.</li> <li>• The value of the Yes/No option to record whether an EO called the RO.</li> <li>• The value of the Yes/No option to record whether the RO asked anyone to complete an Incident Report.</li> </ul>
11.	Make a Poll Book entry (objection to ballot interpretation)  (s. 286)	A Candidate or Candidate Representative objects to the interpretation of a ballot as being counted for a specific Candidate or being rejected.	<ul style="list-style-type: none"> <li>• Name of the Candidate or Candidate Representative who objected to the ballot.</li> <li>• Reason for objection.</li> <li>• A Service Point specific sequentially generated reference number for the objection starting with 1 and incremented by 1 with each additional objection.</li> <li>• A ballot Accepted/Rejected option to record the EO decision on the final disposition of the ballot.</li> </ul>	<ul style="list-style-type: none"> <li>• The triggering condition type – reason for the entry.</li> <li>• Name of the Candidate or Candidate Representative making the objection.</li> <li>• Reason for objection.</li> <li>• The objection number</li> <li>• The value of the ballot Accepted/Rejected option to record the EO decision on the final disposition of the ballot.</li> </ul>

EO Activity ID	EO Activity	Triggering Condition	Information to be displayed or captured on the E-Poll Device	Information to be recorded in the E-Poll Book entry
12	Processing Transfer Certificate (EC 10190 or EC 50052)	An Elector has a white copy of a Transfer Certificate which allows him to vote at a Polling Place other than where he would normally be allowed to vote.	<ul style="list-style-type: none"> <li>• Elector's name.</li> <li>• Elector's residential address.</li> <li>• Transfer Certificate number</li> <li>• ED name and Polling Division number</li> </ul>	<ul style="list-style-type: none"> <li>• The triggering condition type – reason for the entry.</li> <li>• A link to the Elector on the list, or link to the Registration</li> <li>• A link to the Transfer Certificate.</li> </ul> <p>AND:</p> <ul style="list-style-type: none"> <li>○ An Electronic Signature.</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>○ An image of the displayed screen once the Electronic Signature is complete.</li> </ul>

## ANNEX A – APPENDIX E.3 – Specification for Reports

### 22. SPECIFICATION FOR REPORTS

Note that in the following requirements, the term "printable" means that the report can be captured in a printer-ready and readable format, such as ".pdf" files and which can be captured from the E-Poll Device to an external device, such as a USB key. EC does not currently envision a requirement for physical printers at Polling Places. All reports generated by the Contractor Central Server must be printable and exportable in a data format such as .csv.

Name	Description (Content on the report, supported output formats, filter/sort criteria	Priority
E-Poll Device Status	<p><b>1. This report or dashboard is for use in the office of the RO or AARO to monitor E-Poll Devices in their ED and by ECHQ to view by ED or Nationally.</b></p> <p><b>1.1. Filtered:</b></p> <ul style="list-style-type: none"> <li>a) By ED Number (ECHQ only)</li> <li>b) By PD Number</li> <li>c) By synchronization status</li> <li>d) By Polling Place</li> </ul> <p><b>1.2. Sort:</b></p> <ul style="list-style-type: none"> <li>a) By ED Number</li> <li>b) By PD Number</li> <li>c) By synchronization status</li> <li>d) By Polling Place</li> </ul> <p><b>1.3. Header:</b></p> <ul style="list-style-type: none"> <li>a) ED Name</li> <li>b) ED Number</li> <li>c) Date, Time, and Time zone of User</li> <li>d) Event Name</li> </ul> <p><b>1.4. Content:</b></p> <ul style="list-style-type: none"> <li>a) Service Point's Device name</li> <li>b) Service Point's Device physical address (Polling Place address)</li> <li>c) E-Poll Device's unique ID</li> <li>d) PDs that are serviced by the Polling Place</li> <li>e) List of E-Poll Devices (including the device displaying the report) and the status of each which are currently, or previously have been, on the Polling Place local area network</li> <li>f) The device current application software version</li> <li>g) Current connectivity status with the Contractor Central Server</li> <li>h) Synchronization status of the device with the Contractor Central</li> </ul>	Essential



Name	Description (Content on the report, supported output formats, filter/sort criteria)	Priority
	<p>Server</p> <p>i) Last connection date and time with the Contractor Central Server, based on Time zone of User</p> <p><b>1.5. Output:</b></p> <p>a) From the Contractor Central Server: This report must be viewable, with options to be produced in either a ".pdf" or ".csv" file format, which can be downloaded and saved to a local system through a web service.</p> <p>b) From the E-Poll Device: This report must be viewable and produced in both a ".pdf" or ".csv" file format, and which can be saved to a local storage device.</p>	
<p>Revised and Official Lists of Electors</p>	<p><b>2. This viewable only report of the Revised and Official Lists of Electors is for use by the EO at the Polling Place (at Advance and Ordinary Polls). An EO would generate the list to show to a Candidate or Candidate's Representative if requested.</b></p> <p><b>2.1. Filtered:</b></p> <p>a) By ED Number (ECHQ only)</p> <p>b) By PD Number</p> <p>c) By Polling Place</p> <p>d) By Elector voted status</p> <p><b>2.2. Sort:</b></p> <p>a) By Last Name</p> <p>b) By PD</p> <p><b>2.3. Header:</b></p> <p>a) ED Number</p> <p>b) ED Name</p> <p>c) PD Number</p> <p>d) PD Name</p> <p>e) Service Point Number</p> <p>f) Service Point Name</p> <p>g) Date and Time of the generating of the report</p> <p><b>2.4. Content:</b></p> <p>a) Elector Last Name</p> <p>b) Elector First Name</p> <p>c) Elector Middle Name</p> <p>d) Elector Gender</p> <p>e) Elector Year of Birth</p> <p>f) Elector Residential Address</p> <p>g) Elector Mailing Address</p>	<p>Essential</p>

Name	Description (Content on the report, supported output formats, filter/sort criteria)	Priority
	<p>h) Elector Unique Identifier                      i) Elector Sequence Number on list                      j) Elector Current Voted Status                      k) Elector Revision Status</p> <p><b>2.5. Output:</b></p> <p>a) From the Contractor Central Server: This report must be viewable, with options to be produced in either a ".pdf" or ".csv" file format, which can be downloaded and saved to a local system through a web service.</p> <p>b) From the E-Poll Device: This report must be viewable only.</p> <p>The title of the report will change depending on the poll type:                      Advance Poll – Revised List of Electors                      Ordinary Poll – Official List of Electors</p>	
<p>Polling Place                      Statement of                      Electors who                      have voted for                      Candidate                      Representatives</p>	<p><b>3a. This report provides the Polling Division and sequence numbers of Electors who have voted in a specified event. The report is provided to Candidates at the end of each Advance Poll day or every 60 minutes on Polling Day.</b></p> <p><b>3a.1. Sort:</b></p> <p>a) By PD Number                      b) By Elector Sequence Number</p> <p><b>3a.2. Header:</b></p> <p>a) ED Number                      b) ED Name                      c) Polling Place Name                      d) PD Numbers for PDs served at the Polling Place                      e) Date and Time that the report was produced based on Local time</p> <p><b>3a.3. Content:</b></p> <p>a) ED Number of Electors struck as voted                      b) Polling Division of Electors struck as voted                      c) Sequence number of Electors struck as voted                      d) Elector vote time truncated to hour</p> <p>Note that this should be a cumulative report.</p> <p><b>3a.4. Output:</b></p> <p>a) From the E-Poll Device: This report must be viewable and produced in both a ".pdf" or ".csv" file format, and which can be saved to a local storage device, including an external memory device such as a USB key for delivery to any Candidate</p>	<p>Essential</p>

Name	Description (Content on the report, supported output formats, filter/sort criteria)	Priority
	Representatives at the Polling Place.	
Returning Office Post-Polling Day Statement of Electors who have voted	<p><b>3b. This report provides the Polling Division and sequence numbers of Electors who have voted in a specified event for an Electoral District after a Polling Day.</b></p> <p><b>3b.1. Filter and Sort:</b></p> <ul style="list-style-type: none"> <li>a) By PD Number</li> <li>b) By Elector Sequence Number</li> </ul> <p><b>3b.2. Header:</b></p> <ul style="list-style-type: none"> <li>a) ED Number</li> <li>b) ED Name</li> <li>c) Polling Place Name</li> <li>d) PD Numbers for PDs served at the Polling Place</li> <li>e) Date and Time that the report was produced based on local time of the ED</li> </ul> <p><b>3b.3. Content:</b></p> <ul style="list-style-type: none"> <li>a) ED Number of Electors struck as voted</li> <li>b) Polling Division of Electors struck as voted</li> <li>c) Sequence number of Electors struck as voted</li> <li>d) Elector vote time truncated to hour</li> </ul> <p><b>3b.4. Output:</b></p> <p>From the Contractor Central Server: This report must be viewable, with options to be produced in either a ".pdf" or ".csv" file format, which can be downloaded and saved to a local system through a web service for delivery to Candidate representatives at the RO Office.</p>	Essential
Count of transactions by transaction type, by E-Poll Device, by Election Officer	<p><b>4. This report is for use by supervising EOs, ROs and ECHQ, to monitor User EO transactions at a Polling Place.</b></p> <p><b>4.1. Filter:</b></p> <ul style="list-style-type: none"> <li>a) By ED (ECHQ only)</li> <li>b) By Polling Place Name (ROs and ECHQ only)</li> <li>c) By E-Poll Device</li> <li>d) By Transaction type</li> <li>e) By EO</li> </ul> <p><b>4.2. Sort:</b></p> <ul style="list-style-type: none"> <li>a) By Polling Place Name (ROs and ECHQ only)</li> <li>b) By E-Poll Device</li> <li>c) By Transaction type (e.g. Strike on the List, Correction,</li> </ul>	Essential

Name	Description (Content on the report, supported output formats, filter/sort criteria)	Priority
	<p>Registration, Transfer Certificate, etc.)                      d) By Election Officer</p> <p><b>4.3. Header:</b>                      a) ED Date and Time                      b) ED                      c) PD(s)                      d) Polling Place Name</p> <p><b>4.4. Content:</b>                      a) Service transaction types                      b) E-Poll Devices                      c) EO usernames                      d) Count</p> <p><b>4.5. Output:</b>                      a) From the Contractor Central Server: This report must be viewable, with options to be produced in either a ".pdf" or ".csv" file format, which can be downloaded and saved to a local system through a web service.                      b) From the E-Poll Device: This report must be viewable only.</p>	
<p>List of Electors that were administered the Oath of Residence</p>	<p><b>5. This report, required under legislation (EC 50056 - legislation 292.1), is for use by the RO office to list Electors that were administered the Oath of Residence.</b></p> <p><b>5.1. Filter:</b>                      a) By ED                      b) By PD</p> <p><b>5.2. Sort:</b>                      a) By ED                      b) By PD                      c) By Elector Sequence Number</p> <p><b>5.3. Header:</b>                      a) ED                      b) PD</p> <p><b>5.4. Content:</b>                      a) Elector Sequence Number                      b) Elector Name                      c) Elector Address                      d) Attestor Seq. No.                      e) Attestor Name</p>	<p>Essential</p>

Name	Description (Content on the report, supported output formats, filter/sort criteria)	Priority
	f) Attestor Address  <b>5.5. Output:</b> a) From the Contractor Central Server: This report must be viewable, with options to be produced in either a ".pdf" or ".csv" file format, which can be downloaded and saved to a local system through a web service.	
Ballot Reconciliation	<b>6. This report is for use by EOs at the Polling Place to verify the balance of ballots used against the number of voters, during the day and after the close of polls. The report will only display the balance for the Election Officer's Service Point.</b>  <b>6.1. Filter:</b> a) By Day  <b>6.2. Header:</b> a) ED b) Polling Place Name c) E-Poll Device d) Date and Time  <b>6.3. Content:</b> a) Net (adds and removes) total number of ballots currently in EO's custody at Service Point b) Record of Electors struck as voted c) Record of Electors already marked as voted who took the Oath of not having voted d) Record of Electors not on the list who voted (registered or using a Transfer Certificate) e) Record of Spoiled Ballots (as captured by E-Poll Device) f) Record of Lost or Stolen Ballots g) Total of Unused Ballots the Service Point should have  <b>6.4. Output:</b> a) From the E-Poll Device: This report must be viewable only.	Essential
Polling Place Activities	<b>7. This report is for use by ROs and ECHQ to provide details on all activities at the Polling Places excluding Strikes.</b>  <b>7.1. Filtered:</b> a) By ED b) By Polling Place Name c) By Poll Type (Ordinary or Advance)	High

Name	Description (Content on the report, supported output formats, filter/sort criteria)	Priority
	<p>d) Date or Day of Election</p> <p><b>7.2. Sort:</b></p> <ul style="list-style-type: none"> <li>a) By Activity</li> <li>b) By Elector Name</li> </ul> <p><b>7.3. Header:</b></p> <ul style="list-style-type: none"> <li>a) ED Name</li> <li>b) ED No.</li> <li>c) Date and time the report was generated</li> <li>d) Polling Place location or address</li> <li>e) Date of Electoral Event</li> </ul> <p><b>7.4. Content:</b></p> <ul style="list-style-type: none"> <li>a) Record of Electors Requiring an Oath</li> <li>b) Other Remarks Concerning the Taking of the Votes</li> <li>c) Record of Electors who refused to take an Oath or refused to sign</li> <li>d) Record of Electors Voting by Transfer Certificate (Ordinary Polls only)</li> </ul> <p><b>7.5. Output:</b></p> <ul style="list-style-type: none"> <li>a) From the Contractor Central Server: This report must be viewable, with options to be produced in either a ".pdf" or ".csv" file format, which can be downloaded and saved to a local system through a web service.</li> </ul>	
Notable Events Summary	<p><b>8. This report is for use by ROs and ECHQ to list all notable events that have happened at the Service Point.</b></p> <p><b>8.1. Filter:</b></p> <ul style="list-style-type: none"> <li>a) By ED (ECHQ Only)</li> <li>b) By Polling Place</li> <li>c) By Service Point</li> <li>d) By Type of notable event</li> </ul> <p><b>8.2. Sort:</b></p> <ul style="list-style-type: none"> <li>a) By Polling Place</li> <li>b) By Type of notable event</li> </ul> <p><b>8.3. Header:</b></p> <ul style="list-style-type: none"> <li>a) ED</li> <li>b) Polling Place Name</li> <li>c) PDs served by the Polling Place</li> <li>d) Date and Time based on local time</li> </ul>	High

Name	Description (Content on the report, supported output formats, filter/sort criteria)	Priority
	<p>e) Event Name and Date                      f) Service Point</p> <p><b>8.4. Content:</b>                      a) Event information                      b) EO                      c) Reported Date, Time and Time zone of the device                      d) Has the ROs office been contacted (Yes/No)                      e) Has an Incident report been completed (Yes/No)</p> <p><b>8.5. Output:</b>                      a) From the Contractor Central Server: This report must be viewable, with options to be produced in either a ".pdf" or ".csv" file format, which can be downloaded and saved to a local system through a web service.</p>	
Elector Record detail	<p><b>9. This report is for use by ECHQ and ROs after Polling Day to search, view and print an Elector's record from a Service Point where they have been marked as voted.</b></p> <p><b>9.1. Filter:</b>                      a) By ED (ECHQ Only)                      b) By PD                      c) By Polling Place Name                      d) By Elector Name                      e) By Elector Unique Identifier</p> <p><b>9.2. Header:</b>                      a) ED                      b) Polling Place Name                      c) Date and Time of report generation based on User Local time                      d) Event Name and Date</p> <p><b>9.3. Content:</b>                      a) Elector ED                      b) Elector PD                      c) Elector Last Name                      d) Elector First Name                      e) Elector Middle Name                      f) Elector Gender                      g) Elector Date of Birth                      h) Elector Residential Address                      i) Elector Mailing Address                      j) Elector Unique Identifier                      k) Elector Sequence Number on list</p>	High

Name	Description (Content on the report, supported output formats, filter/sort criteria)	Priority
	l) Elector Current Voted Status m) Elector Revision Status n) Elector Signature o) Date and Time of all transactions associated to that record, converted to User local time <b>9.4. Output:</b> a) From the Contractor Central Server: This report must be viewable, with options to be produced in either a ".pdf" or ".csv" file format, which can be downloaded and saved to a local system through a web service.	
Statement of The Vote	<b>10. This report is for use by Election Officers to complete the paper copy of the Statement of The Vote at a Service Point and Polling Place level once counting of ballot is complete.</b>  <b>10.1. Filter:</b> a) By report type (Service Point or Polling Place) b) By Poll type (Advance or Ordinary)  <b>10.2. Header:</b> a) ED No. b) ED Name c) Date of Election d) Identification number of Polling Divisions served at Polling Place e) Polling Place Name f) E-Poll Device No. g) E-Poll Device Name h) Date and Time of when the report was generated  <b>10.3. Content:</b> a) Each Candidate Name for the ED b) Each Candidate result of the ballot papers count c) Total of valid Votes Cast d) Total of Rejected Ballot counted e) Total of Votes Cast f) Number of Electors who voted g) Indicator to confirm e and f are equal h) Spoiled Ballots i) Unused Ballots j) Total of f, h, and i k) Ballot received from Returning Officer l) Indicator to confirm j and k are equal m) Number of the ballots in number of books n) Seal No. used at closing	Essential



Name	Description (Content on the report, supported output formats, filter/sort criteria)	Priority
	<b>10.5. Output:</b> a) From the E-Poll Device: This report must be viewable only. The layout of this report should match <b>Figure 25 – Current Statement of The Vote</b> as closely as possible.	

## ANNEX A – APPENDIX E.4 – The Electoral Calendar - Key Dates and E-Poll Solution Activities

### 23. RO OFFICE KEY DATES AND CONTRACTOR ACTIVITIES

Election Calendar Days	Election activities on calendar date(s)
	<ul style="list-style-type: none"> <li>• <b>Relevance for E-Poll Devices</b></li> <li>➤ <b>Contractor Activities</b></li> </ul>
<p><b>Issue of the Writ</b>  <b>Usually Day 36, but may be earlier</b></p>	<p>The issue of the writs: the commencement of the event; voting by special ballot is available at the RO office as soon as it opens; the date of the start of revision is determined, which is used in By-Election residence requirements.</p> <ul style="list-style-type: none"> <li>• Electoral Event data (including the revision date which, for By-elections only, is used to prompt EOs to verify Electors meet residence requirements) is available (from the EC data centre) for load to the Contractor Central Server and E-Poll Devices.</li> </ul>
<p><b>Day 33</b>  <b>(Usually 3 days after the call of Election)</b></p>	<p>PLE is being distributed to Candidates in electronic form</p> <ul style="list-style-type: none"> <li>• PLE is available for load to the Contractor Central Server</li> <li>➤ At minimum, the Contractor must load the PLE to the Contractor Central Server and begin receiving revisions. From this time, until Day 0, the Contractor Central Server must read and apply changes from the EC data centre to the Contractor Central Server as soon as possible after they are made available by EC.</li> </ul>
<p><b>Day 26</b></p>	<p>VICs begin to be mailed based on PLE</p> <ul style="list-style-type: none"> <li>• Polling Place information is available for load to Contractor Central Server</li> </ul>

Election Calendar	Election activities on calendar date(s)
Days	<ul style="list-style-type: none"> <li>• <b>Relevance for E-Poll Devices</b></li> </ul>
	<ul style="list-style-type: none"> <li>➤ <b>Contractor Activities</b></li> </ul>
<b>Day 24</b>	<p>LAST day for mailing of the VIC. (ss. 95(1)); FINAL day for ROs to send Polling Place address lists to confirmed Candidates and parties. (ss. 125.1(1)).</p> <ul style="list-style-type: none"> <li>• PLE is available for load to E-Poll Devices</li> <li>• Polling Place information is available for load to E-Poll Devices.</li> </ul>
<b>Day 24</b>	<ul style="list-style-type: none"> <li>➤ Contractor prepares full data sets in Contractor Central Server for download.</li> <li>➤ If the E-Poll Devices are loaded with this version of the PLE, or any version on or before Day 11, they will need to be updated with revisions up to the end of day 11 to contain the RLE, i.e. to be ready for first use at Advance Polls on day 10.</li> </ul>
<b>Day 23</b>	<p>ROs continue to appoint and begin training (up to Day 11) Advance Poll Election Officers;                      ROs continue appointing and training Election Day Election Officers (up to Day 1).</p> <ul style="list-style-type: none"> <li>• Collection of login credentials for Advance and Ordinary Poll Election Officers begins</li> </ul>
<b>Day 19 – 18</b>	<p>List of Candidates finalized; updated Preliminary List of Electors (aka Day 19 list) provided to Candidates (s. 104.1) in electronic format only.</p> <ul style="list-style-type: none"> <li>• List of Candidates is available for load to E-Poll Devices</li> <li>• Partial update of PLE is available for devices such that it matches what Candidates initially possess.</li> </ul>

Election Calendar	Election activities on calendar date(s)
Days	<ul style="list-style-type: none"> <li>• <b>Relevance for E-Poll Devices</b></li> </ul>
	<ul style="list-style-type: none"> <li>➤ <b>Contractor Activities</b></li> </ul>
<p><b>Day 15 –</b></p> <p><b>Day 11</b></p>	<p>RO production of RLE; Day 11 is the Day prescribed by the CEA (s. 105) to prepare the RLE for use at advance polls. ROs in some EDs produce this list as early as day 15 where distribution of materials takes a few days. EOs in rural areas pick up materials.</p> <ul style="list-style-type: none"> <li>• The RLE is produced at ORO to reflect all changes up to Day 15. Any changes made to the RLE after Day 15 are reflected in a <i>Statement of Changes</i> printed at the end of Day 11, which completes the RLE.</li> <li>• Both the RLE and <i>Statement of Changes</i> data are available for load to E-Poll Devices over 5 days: Days 15, 14, 13, 12 and 11.</li> </ul> <ul style="list-style-type: none"> <li>➤ From Day 15 to Day 7, the Contractor Central Server must support RO office and AARO office staff to load E-Poll Devices for Advance Polls.</li> <li>➤ Starting Day 15, as each E-Poll Device is loaded, download of updates from the Contractor Central Server to E-Poll Devices to synchronize with EC updates must be enabled.</li> <li>➤ Starting Day 15, the Contractor Central Server must support the downloading of updates by the E-Poll Devices from public/private Internet access points outside the ORO/AARO offices.</li> </ul>
<p><b>Day 11</b></p> <p><b>(or earlier for remote areas)</b></p>	<p>EOs pickup materials in most cities</p> <ul style="list-style-type: none"> <li>• Collection of credentials for Advance Poll Election Officers ends</li> <li>• Includes E-Poll Device, to operate Advance Polls starting day 10.</li> </ul> <ul style="list-style-type: none"> <li>➤ The Contractor Central Server must support access to downloaded updates from public/private Internet access points outside the ORO/AARO offices for all E-Poll Devices used at Advance Polls.</li> </ul>

Election Calendar	Election activities on calendar date(s)
Days	<ul style="list-style-type: none"> <li>• <b>Relevance for E-Poll Devices</b></li> </ul>
	<ul style="list-style-type: none"> <li>➤ <b>Contractor Activities</b></li> </ul>
Days 10,9,8,7:	<p>Advance Polls</p> <ul style="list-style-type: none"> <li>• Operation, E-Poll Device status upload, and where possible, real-time upload of Elector voted information for Advance Polls;</li> <li>• Real time, or at minimum nightly, upload of Elector voted information;</li> <li>• Real time, or at minimum nightly, download of combined Advance Poll and SVR voted information when possible.</li> </ul> <ul style="list-style-type: none"> <li>➤ Activate Advance Polls for polling operation and initiate bi-directional communication between the E-Poll Devices and EC via the Contractor Central Server. The E-Poll Solution must enable:                             <ul style="list-style-type: none"> <li>○ Elector Strike data, and changes (corrections and registrations) to the List of Electors to be uploaded to EC, at minimum nightly, ideally every 30 minutes.</li> <li>○ Elector Strike data for the entire ED (i.e., consolidated advance Strikes from E-Poll Devices and SVR Strikes from EC) to be downloaded to all Advance E-Poll Devices, at minimum nightly, ideally as frequently as practical.</li> </ul> </li> </ul>
Day 6:	<p>The period for revision of the lists of electors ends at 6:00pm, RO Office time (ss. 96.(1))</p> <ul style="list-style-type: none"> <li>• Day 6 to 5: Advance Polling Days data upload and device cleansing/repurposing is completed.</li> </ul>

Election Calendar	Election activities on calendar date(s)
Days	<ul style="list-style-type: none"> <li>• <b>Relevance for E-Poll Devices</b></li> </ul>
	<ul style="list-style-type: none"> <li>➤ <b>Contractor Activities</b> <ul style="list-style-type: none"> <li>➤ Day 6 to 3: E-Poll Devices must be enabled to complete and confirm upload of Elector Strike data, and changes (corrections and registrations) to the list (in preparation of the OLE) from the first location where Internet access can be obtained. Day 3 is the last day for ROs to prepare the OLE for use on Election Day.</li> <li>➤ The Contractor Central Server must issue a unique confirmation code to the EO upon completion of List of Electors upload and all E-Poll Device logs uploads, and to the ORO staff or AARO office staff to confirm readiness for E-Poll Device decommissioning or re-purpose for Ordinary Polls.</li> </ul> </li> </ul>

Election Calendar	Election activities on calendar date(s)
<b>Days</b>	<ul style="list-style-type: none"> <li>• <b>Relevance for E-Poll Devices</b></li> </ul>
	<ul style="list-style-type: none"> <li>➤ <b>Contractor Activities</b></li> </ul>
<b>Day 5 – Day1</b>	<p>Final day to send updated VICs to confirmed Electors for any changes to Polling Place addresses and to Electors whose record was updated or added during revision. (ss. 95(4), 102); final day for ROs to notify Candidates and political parties of the address of all Polling Place in the ED. (ss. 125.1(2)); ROs BEGIN to print and reproduce the OLE. (s. 106)</p> <ul style="list-style-type: none"> <li>• Delta file for changes to Polling Places available for load to E-Poll Devices</li> <li>• OLE is available for load to E-Poll Devices (over 5 days: 5, 4, 3, 2, 1).</li> </ul> <ul style="list-style-type: none"> <li>➤ From Day 5 to Day 0, the Contractor Central Server must support ORO Automation Coordinators to load E-Poll Devices with OLE and Polling Place changes for Ordinary Polls.</li> <li>➤ Starting Day 5, as each E-Poll Device is loaded, download of updates from the Contractor Central Server to E-Poll Devices to synchronize with EC updates must be enabled. Revision is complete; downloads during this period will normally consist primarily of credential updates.</li> <li>➤ Starting Day 5, the Contractor Central Server must support EOs in remote areas who will be shipped devices prior to day 1, to access downloaded updates from public/private Internet access points outside the ORO/AARO offices.</li> </ul>
<b>Day 1 (or earlier for remote areas)</b>	<p>EOs pickup materials, including E-Poll Devices, to operate Ordinary Polls on day 0.</p> <ul style="list-style-type: none"> <li>• Collection of credentials for EOs ends</li> </ul> <ul style="list-style-type: none"> <li>➤ The Contractor Central Server must support access to downloaded updates from public/private Internet access points outside the ORO/AARO offices for all E-Poll Devices used at Ordinary Polls.</li> </ul>

Election Calendar	Election activities on calendar date(s)
Days	<ul style="list-style-type: none"> <li>• <b>Relevance for E-Poll Devices</b></li> </ul>
	<ul style="list-style-type: none"> <li>➤ <b>Contractor Activities</b></li> </ul>
<p><b>Day 0</b></p>	<p>Election Day</p>
	<ul style="list-style-type: none"> <li>• Operation, E-Poll Device status upload, and where possible, real-time upload of Elector voted information for Ordinary Polls;</li> </ul>
	<ul style="list-style-type: none"> <li>➤ Activate Ordinary Polls for polling operation and initiate bi-directional communication between the E-Poll Devices and EC via the Contractor Central Server. The E-Poll Solution must enable:                             <ul style="list-style-type: none"> <li>○ Elector Strike data, and changes (corrections and registrations) to the List of Electors to be uploaded to EC, ideally every 30 minutes, or if less often, whenever possible.</li> </ul> </li> <li>➤ Elector Strike data for the entire ED (i.e., consolidated Elector Strikes from E-Poll Devices) to be downloaded to all E-Poll Devices, ideally as often as possible, or as often as connectivity permits.</li> </ul>
<p><b>Day -1 to -14</b></p>	<p>Post-Election Day activities</p>
	<ul style="list-style-type: none"> <li>• Election Day data upload and E-Poll Device cleansing</li> </ul>
	<ul style="list-style-type: none"> <li>➤ Ordinary Poll E-Poll Devices must be enabled to complete and confirm upload of Elector Strike data, and changes (corrections and registrations) to the List of Electors (forming part of the FLE) from the first location where Internet access can be obtained.</li> <li>➤ The Contractor Central Server must issue a unique confirmation code to the EO upon completion of List of Electors upload and all E-Poll Device logs uploads, to the ORO and AARO office staff to confirm readiness for E-Poll Device decommissioning.</li> <li>➤ Contractor must arrange pick-ups of the E-Poll Devices from ORO and AARO offices.</li> </ul>





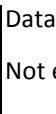
## **ANNEX A – APPENDIX E.5 – Data Integration Calendar**

### **24. DATA INTEGRATION CALENDAR**

The scope of this schedule does not cover transferring a final copy of the Contractor Central Server. This calendar shows, by Electoral Calendar day, when the data will be made available by EC, and when it should be made available to the field staff for use on the E-Poll devices.

Legend:

 Mandatory data availability

 Data available for transfer  
 Not expected to be retrieved

\*SoC means Statement of Changes  
 which is changes to the List of Electors

	<i>Issue of writs day</i>			VICs mailed						RLE to parties & Candidates					SoC* to parties & Candidates	Advance Polls	Advance Polls	Advance Polls	Advance Polls	Revision ends at 18:00H PT						Ordinary Poll							
EC → Vendor	36	35	...	24	...	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	-1	-2	-3	-4	...	-14	
Event Data																																	
Reference Data																																	
Poll Key Data																																	
PP-PD Data																																	
Elector Data																																	
Candidate Data																																	
User Data																																	
Vendor → EC	36	35	...	24	...	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	-1	-2	-3	-4	...	-14	
Simple Strike																																	
Strike/Change																																	

## ANNEX A – APPENDIX E.6 – Data Integration – Data Dictionaries

### 25. DATA INTEGRATION – DATA DICTIONARIES

This section describes data sets exchanged between the EC data centre and the Contractor Central Server, including the list of data elements in each data set:

- Data that EC provides is (Out)
- Data that EC requires to be returned is (In)

#### Notes:

1. Minor adjustments to items in tables below may be performed as agreed between EC and Contractor.
2. Items in tables below that are in *italic and gray* represent information that can be provided by EC if needed by the Contractor.
3. Bold typeface is used for **Field Names** when they are referenced in the Notes column.

#### 25.01. Data Dictionary – EC to Contractor ECP – Engineered Change Proposal

Data transferred from EC to Contractor.

##### 25.01.01 Row Header Format

Each extract from EC to Contractor contains several common fields representing row header information to provide details about the current data set (batch) and when was the EC record created.

<b>Field Name</b>	<b>Compulsory (Y/N)</b>	<b>Data Type</b>	<b>Data Size</b>	<b>Notes</b>
Row Identifier	Y	NUMBER	12	Unique identifier of the row in the data set
Created Date	Y	DATE		Date and time when the row was added to the extract data set; converted to EST/EDT
Batch Identifier	Y	NUMBER	12	Unique identifier of the data extract

These fields are not listed in the data extract dictionaries to focus on the main business function data elements.

### 25.01.02 Elector (Out)

Initial transfer contains Electors from EC that:

- Were on PLE - with their Current info, their PLE info, and all their approved changes since the PLE, or
- Were added to the list after the PLE – with all their approved changes, or
- Are potential Electors with a determined ED and PD – with all their changes.

Incremental transfer contains Electors from EC that:

- Were added and approved since last transfer, or
- Have approved changes performed at EC since last transfer

Row Header				
Elector State				
Field Name	Compulsory (Y/N)	Data Type	Data Size	Notes
Elector Identifier	Y	NUMBER	12	Elector unique identifier
Active Indicator	Y	TEXT	1	Elector's list record status. Indicates whether the status of the record on the List of Electors is active or not. Possible values: Y/N.
Operation Flag	Y	TEXT	1	Data operation for the row, A/U/D – Add, Update or Delete
PPPE Elector Identifier	N	TEXT	30	NOT NULL for newly added Elector by Contractor. Passed back to link the <b>PPPE Elector Identifier</b> with the EC one.
ED Identifier	Y	NUMBER	12	Unique identifier of an Electoral District. ED defines the geographical area represented by each Member of Parliament.
ED Code	Y	TEXT	5	ED code, the first 2 digits represent the <b>Province Identifier</b> , the next 3 are a sequence number for the ED within the Province.
ED Name – English	Y	TEXT	50	Name of the ED in English
ED Name – French	Y	TEXT	50	Name of the ED in French
PD Identifier	Y	NUMBER	12	Unique identifier of a Polling Division.
PD Name	N	TEXT	100	Name of the PD
PD Number	Y	NUMBER	4	Number of the PD
PD Number Suffix	N	TEXT	6	Suffix of the <b>PD Number</b>
Mobile Poll	Y	TEXT	1	Indicate whether the PD is a Mobile

Indicator				Poll. Possible values: Y/N
Ordinary Polling Place Identifier	Y	NUMBER	12	Unique identifier of the Polling Place for Ordinary poll day.
Advance Polling Place Identifier	Y	NUMBER	12	Unique identifier of the Polling Place for Advance polling days.
PS Identifier	Y	NUMBER	12	Unique identifier of the Polling Station.
PS Split Suffix	N	TEXT	1	PS Split Suffix. When a Polling Station is split, each split station is given a suffix in alphabetical order (E.g.: 'A','B', etc.)
List Revision Status Identifier	Y	NUMBER	12	Represents the current Revision status of the Elector, one of the values provided in reference data (OUT)
Elector Transaction Log Identifier	N	NUMBER	12	Unique identifier of a transaction for an Elector record. If the Elector's information has not changed since the PLE, this field is NULL. Otherwise it contains the identifier of the last-approved transaction for the Elector. Used for data verification at EC only.
Created Timestamp	Y	DATE		Timestamp – date and time with 6 digits in the fractional part of the SECOND date/time field when the Elector transaction was created in the EC Central Data Store; converted to EST/EDT. Can be used to order transactions for an Elector.
Sequence Number	Y	NUMBER	4	Sequence number of an Elector within a PD. The combination of <b>ED Identifier, PD Identifier and Sequence Number</b> is unique.
Vote Status Identifier	Y	NUMBER	12	Represents how the Elector voted. One of the values provided in Reference Data (OUT).
<b>Personal Information</b>				
Field Name	Compulsory (Y/N)	Data Type	<b>Data</b> Size	Notes
First Name	N	TEXT	50	Elector first name
Parsed First Name	N	TEXT	50	Parsed Elector first name in

				uppercase. Accents, spaces, and non-alphabetic characters are removed.
Middle Name	N	TEXT	50	Elector middle name
Parsed Middle Name	N	TEXT	50	Parsed Elector middle name in uppercase. Accents, spaces, and non-alphabetic characters are removed.
Last Name	Y	TEXT	100	Elector last name
Parsed Last Name	Y	TEXT	100	Parsed Elector last name in uppercase. Accents, spaces, and non-alphabetic characters are removed.
Gender Identifier	Y	NUMBER	12	Elector gender, one of the values provided in Reference Data (OUT)
Date Of Birth Year	N	NUMBER	4	Date of birth year
Date Of Birth Month	N	NUMBER	2	Date of birth month
Date Of Birth Day	N	NUMBER	2	Date of birth day
Opt Out of Register Indicator	Y	TEXT	1	Elector opts out of being added to the Register. Possible values: Y/N
Phone Number	N	TEXT	25	Elector phone number
Email Address	N	TEXT	255	Elector email address
<b>Residential (Physical) Address – PA</b>				
<b>Field Name</b>	<b>Compulsory (Y/N)</b>	<b>Data Type</b>	<b>Data Size</b>	<b>Notes</b>
<i>Residential Address Identifier</i>	Y	NUMBER	12	<i>Unique identifier of an Address at EC</i>
<i>PPPE Residential Address Identifier</i>	N	TEXT	30	<i>Unique identifier of an Address created by Contractor. Passed back to link the PPPE identifier with the EC one.</i>
Address Type Identifier	Y	NUMBER	12	Represents the address type associated with the address, one of the values provided in Reference Data (OUT)
<i>Municipality Identifier</i>	Y	NUMBER	12	<i>Unique identifier of the municipality associated with the address</i>
Municipality Name	Y	TEXT	100	Name of the municipality associated with the address
Parsed Municipality Name	Y	TEXT	100	Parsed name of the municipality in uppercase. Accents, spaces, and

				non-alphabetic characters are removed.
Municipality Type Identifier	N	NUMBER	12	Municipality type identifier
Province Identifier	Y	NUMBER	12	Unique identifier of the province
Postal Code	N	TEXT	6	Canada Post postal code
Building Identifier	N	TEXT	20	Building identifier, concatenated value of <b>Street Identifier</b> , <b>Street Number</b> and <b>Street Suffix</b>
Lot	N	TEXT	4	The number of the lot along this concession within this place.
Concession	N	TEXT	4	The number of the concession within this place.
Township	N	TEXT	4	The number of the township in which this address exists.
Range	N	TEXT	3	The number of the range within this township in which this address exists.
Meridian	N	TEXT	2	The number of the meridian within this range on which this address exists.
Section	N	TEXT	5	The number of the section along this meridian on which this address exists. Section includes the quarter.
<i>Local Community Identifier</i>	<i>N</i>	<i>NUMBER</i>	<i>12</i>	<i>Unique identifier for place – local community</i>
Local Community Name	N	TEXT	100	Name of the local community
Local Community Province Identifier	N	NUMBER	12	Province of the local community. Required when <b>Local Community Name</b> is specified.
<i>Street Identifier</i>	<i>N</i>	<i>NUMBER</i>	<i>12</i>	<i>Unique identifier of the street associated with the address</i>
Street Name	N	TEXT	50	Name of the street
Parsed Street Name	N	TEXT	50	Parsed name for the street in uppercase. Accents, spaces, and non-alphabetic characters are removed.
Street Type Identifier	N	NUMBER	12	Unique identifier of the street type, one of the values provided in Reference Data (OUT)
Street Direction Identifier	N	NUMBER	12	Unique identifier of the street direction, one of the values provided

				in Reference Data (OUT)
Street Number	N	TEXT	6	Physical building number of an address.
Street Number Suffix	N	TEXT	1	Suffix pertaining to a street address number (e.g. 1, A, 1/2).
Apartment/Suite	N	TEXT	6	Apartment, suite, or unit number of an address.
Mailing Address – MA				
Field Name	Compulsory (Y/N)	Data Type	Data Size	Notes
Mailing Address Same as Residential Address Indicator	Y	TEXT	1	Possible values: Y/N. Set to Y when mailing address is the same as the residential address
<i>Address Identifier</i>	<i>N</i>	<i>NUMBER</i>	<i>12</i>	<i>For mailing addresses of type Civic only. Unique identifier of an address at EC</i>
<i>PPPE Mailing Address Identifier</i>	<i>N</i>	<i>TEXT</i>	<i>30</i>	<i>For mailing addresses of type Civic only. Unique identifier of an address created by Contractor. Passed back to link the PPPE identifier with the EC one.</i>
Address Type Identifier	Y	NUMBER	12	Represents the mailing address type associated with the address, one of the values provided in Reference Data (OUT)
<i>Municipality Identifier</i>	<i>Y</i>	<i>NUMBER</i>	<i>12</i>	<i>Unique identifier of the municipality associated with the address</i>
Municipality Name	Y	TEXT	100	Name of the municipality associated with the address
Parsed Municipality Name	Y	TEXT	100	Parsed name of the municipality in uppercase. Accents, spaces, and non-alphabetic characters are removed.
Municipality Type Identifier	N	NUMBER	12	Municipality type identifier
Province Identifier	Y	NUMBER	12	Unique identifier of the province
Postal Code	Y	TEXT	6	Canada Post postal code
Postal Station Type Identifier	N	NUMBER	12	Represents the postal installation type, one of the values provided in Reference Data (OUT)
Postal Station	N	TEXT	15	The combination of postal



Name				installation type and postal installation type name uniquely identifies an installation.
PO Box Number	N	TEXT	6	Postal service (PO Box) number. Used together with mailing <b>Address Type Identifier</b> .
Box	N	TEXT	15	Addition information for “rural route” delivery identifying the mail recipient’s compartment/box within a postal pickup site or group mailbox.
Compartment	N	TEXT	15	Addition information for “rural route” or “suburban service” delivery identifying the mail recipient’s compartment within a postal delivery site.
Group	N	TEXT	15	Addition information for “rural route” delivery identifying the location of a postal pickup site shared by a group of mail recipients.
Site	N	TEXT	15	Addition information for “rural route” or “suburban service” delivery identifying the location of a postal delivery site.
MR#/RR#/SS#	N	TEXT	6	Postal route type number
<i>Street Identifier</i>	<i>N</i>	<i>NUMBER</i>	<i>12</i>	<i>Unique identifier of the street associated with the address</i>
Street Name	N	TEXT	50	Name of the street
Parsed Street Name	N	TEXT	50	Parsed name for the street in uppercase. Accents, spaces, and non-alphabetic characters are removed.
Street Type Identifier	N	NUMBER	12	Unique identifier of the street type, one of the values provided in Reference Data (OUT)
Street Direction Identifier	N	NUMBER	12	Unique identifier of the street direction, one of the values provided in Reference Data (OUT)
Street Number	N	TEXT	6	Physical building number of an address.
Street Number Suffix	N	TEXT	1	Suffix pertaining to a street address number (e.g. 1, A, 1/2).
Apartment/Suite	N	TEXT	6	Apartment, suite, or unit number of an address.

Additional Delivery Information	N	TEXT	250	Additional delivery information for non-civic mailing addresses.
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### 25.01.03 Poll Key (Out)

Initial transfer: All street and street segments existent at EC.

Incremental transfer: All changes since the last transfer.

Row Header				
Poll Key Info				
Field Name	Compulsory (Y/N)	Data Type	Data Size	Notes
Poll Key Identifier	Y	NUMBER	12	Unique identifier for the Poll Key record
Operation Flag	Y	TEXT	1	Data operation for the row, A/U/D – Add, Update or Delete
ED Identifier	Y	NUMBER	12	Unique identifier of an Electoral District. ED defines the geographical area represented by each Member of Parliament.
ED Code	Y	TEXT	5	ED code, the first 2 digits represent the <b>Province Identifier</b> , the next 3 are a sequence number for the ED within the Province.
ED Name – English	N	TEXT	50	Name of the ED in English
ED Name – French	N	TEXT	50	Name of the ED in French
<i>Street Identifier</i>	<i>Y</i>	<i>NUMBER</i>	<i>12</i>	<i>Street Identifier</i>
Street Name	Y	TEXT	50	Street name
Parsed Street Name	N	TEXT	50	Parsed name for the street in uppercase. Accents, spaces, and non-alphabetic characters are removed. Used for Sort order
Street Direction Identifier	N	NUMBER	12	Unique identifier of the street direction, one of the values provided in Reference Data (OUT)
Street Direction Abbreviation	N	TEXT	6	Street direction abbreviation. The English or French text is shown based on Province
Street Type	N	NUMBER	12	Unique identifier of the street type,

Identifier		R		one of the values provided in Reference Data (OUT)
Street Type Code	N	TEXT	6	Street type code
Municipality Name	N	TEXT	100	Municipality name
From Cross Feature	N	TEXT	50	Description of the geographical feature that the street segment starts from.
From Street Address Number	N	TEXT	6	The physical building number that the street segment starts from.
From Street Address Number Suffix	N	TEXT	1	The physical building number suffix that the street segment starts from.
From Apartment/Suite Number	N	TEXT	6	The suite, apartment or unit number that the street segment starts from.
To Cross Feature	N	TEXT	50	Description of the geographical feature that the street segment ends at.
To Street Address Number	N	TEXT	6	The physical building number that the street segment ends at.
To Street Address Number Suffix	N	TEXT	1	The physical building number suffix that the street segment ends at.
To Apartment/Suite Number	N	TEXT	6	The suite, apartment or unit number that the street segment ends at.
Street Side Identifier	N	NUMBE R	12	Unique identifier of the street side, one of the values provided in Reference Data (OUT)
Street Side Description – English	N	TEXT	100	Description of the side of the street in English. E.g.: Odd, Even, etc.
Street Side Description – French	N	TEXT	100	Description of the side of the street in French
Ordinary PD Identifier	Y	NUMBE R	12	PD identifier for Election Day
Ordinary PD Number	Y	NUMBE R	4	PD number for Election Day
Ordinary PD Number Suffix	Y	TEXT	6	PD number suffix Election Day
Ordinary PD Name	N	TEXT	100	PD name for Election Day
Advance PD	N	NUMBE	12	Identifier of the PD for Advance

Identifier		R		Polling Days
Advance PD Number	N	NUMBER	4	PD Number of the PD for Advance Polling Days

#### 25.01.04 Polling Place – PD (Out)

Initial transfer: All Polling Places existent at EC and their info: their names, opening and closing hours, addresses (as it appears on VIC), and Polling Divisions they are associated with.

Incremental transfer: All changes since the last transfer.

Row Header				
Polling Place – PD Info				
Field Name	Compulsory (Y/N)	Data Type	Data Size	Notes
Polling Place to PD Identifier	Y	NUMBER	12	Unique identifier for the Polling Place to PD record
Operation Flag	Y	TEXT	1	Data operation for the row, <b>A/U/D</b> – Add, Update or Delete
PD Identifier	Y	NUMBER	12	Unique Identifier of a Polling Division. Part of a unique key with <b>Polling Place Identifier</b>
Polling Place Identifier	Y	NUMBER	12	Unique Identifier of a Polling Place. Part of a unique key with <b>PD Identifier</b>
ED Identifier	Y	NUMBER	12	Unique identifier of an Electoral District. ED defines the geographical area represented by each Member of Parliament.
ED Code	Y	TEXT	5	ED code, the first 2 digits represent the <b>Province Identifier</b> , the next 3 are a sequence number for the ED within the Province.
ED Name – English	N	TEXT	50	Name of the ED in English
ED Name – French	N	TEXT	50	Name of the ED in French
PD Number	Y	NUMBER	4	Number of the PD
PD Number Suffix	N	TEXT	6	Suffix of the <b>PD Number</b>
PD Name	N	TEXT	100	Name of the PD
PS Identifier	Y	NUMBER	12	Unique identifier of the polling station.
PS Split Suffix	N	TEXT	1	PS split suffix

PS Split Type Identifier	N	NUMBER	12	Represents the type of Polling Station split, one of the values provided in Reference Data (OUT). E.g.: alpha split, geographic split, etc.
Start Last Name	N	TEXT	3	The first three characters of the parsed last name used to define the start boundary of an alphabetic split.
End Last Name	N	TEXT	3	The first three characters of the parsed last name used to define the end boundary of an alphabetic split.
Start Address	N	TEXT	200	The start sort address of a geographic split, comprised of concatenated parsed address components.
End Address	N	TEXT	200	The end sort address of a geographic split, comprised of concatenated parsed address components.
Advance PD Identifier	Y	NUMBER	12	The Advance PD identifier for an Ordinary PD.
Mobile Poll Indicator	Y	TEXT	1	Indicates whether the PD is a Mobile Poll. Possible values: Y/N.
Polling Place Type	Y	TEXT	1	Represents the type of the Polling Place – whether it is for an Advance Polling Days or Election Day. Possible values: A/O.
Site Name – English	N	TEXT	60	The name of the Polling Place in English
Site Name – French	N	TEXT	60	The name of the Polling Place in French
Text Address Line – English	N	TEXT	2000	The address of the Polling Place as one line text in English. Same format as on VIC
Text Address Line – French	N	TEXT	2000	The address of the Polling Place as one line text in French. Same format as on VIC
Municipality Name	N	TEXT	100	Municipality name
Province Identifier	Y	NUMBER	12	Unique identifier of the province
Province Code	N	TEXT	2	CPC Province Code : ON, QC, AB, etc.
Postal Code	N	TEXT	6	Postal code
From Time	N	TEXT	4	Opening time for the Polling Place represented as 4 digits with 15 minute intervals. E.g.: 0800, 0815, 1200
From Time Interval	N	TEXT	20	Opening time description in English,

– English				E.g.: 08:00 a.m., 08:15 a.m., noon
From Time Interval – French	N	TEXT	20	Opening time description in French, E.g.: 8 h, 8 h 15, midi
To Time	N	TEXT	4	Closing time for the Polling Place
To Time Interval – English	N	TEXT	20	Closing time description in English
To Time Interval – French	N	TEXT	20	Closing time description in French

### 25.01.05 User (Out)

Initial transfer: All PPPE users created at EC.

Incremental transfer: All changes since the last transfer.

Row Header				
User Info				
Field Name	Compulsory (Y/N)	Data Type	Data Size	Notes
User Name	Y	TEXT	340	User unique identifier
Operation Flag	Y	TEXT	1	Data operation for the row, A/U/D – Add, Update or Delete
Password	Y	TEXT	20	Encrypted password
First Name	Y	TEXT	50	First name
Middle Name	N	TEXT	50	Middle name
Last Name	Y	TEXT	50	Last name
Role	Y	TEXT	50	Application role
ED Identifier	N	NUMBER	12	ED identifier

### 25.01.06 Candidate (Out)

Initial transfer: All Candidates created at EC and their info: name and political party they represent.

Incremental transfer: All changes since the last transfer.

Row Header				
Candidate Info				
Field Name	Compulsory	Data Type	Data	Notes

Row Header				
Candidate Info				
	(Y/N)		Size	
Operation Flag	Y	TEXT	1	Data operation for the row, A/U/D – Add, Update or Delete
ED Identifier	Y	NUMBER	12	ED identifier
ED Code	Y	TEXT	5	ED code
ED Name – English	N	TEXT	50	ED name in English
ED Name – French	N	TEXT	50	ED name in French
Ballot Sequence Number	Y	NUMBER	12	Sequence number for the Candidate as it is listed on the ballot
Candidate Name	Y	TEXT	100	Candidate name
Designate Identifier	Y	NUMBER	6	Internal designate identifier for the Candidate.
Party Abbreviation – English	N	TEXT	20	Party abbreviation in English
Party Abbreviation – French	N	TEXT	20	Party abbreviation in French
Party Name – English	N	TEXT	100	Party name in English
Party Name – French	N	TEXT	100	Party name in French

### 25.01.07 Reference Data (Out)

Definition: Reference data created at EC used by Contractor: codes, English and French names and abbreviations.

Only one initial data transfer.

Examples: Address Types, Provinces, Genders, Street Types, Vote Status, etc.

Row Header				
Reference Data Info				
Field Name	Compulsory (Y/N)	Data Type	Data Size	Notes
Reference Column Name	Y	TEXT	30	Name of column as defined in one of the data sets
Reference Value Identifier	Y	NUMBER	12	The value (ID) in the corresponding column
Reference Value	N	TEXT	7	Code associated with the ID.

Row Header				
Reference Data Info				
Code				
Abbreviation – English	N	TEXT	20	Abbreviation in English
Abbreviation – French	N	TEXT	20	Abbreviation in French
Description – English	N	TEXT	100	Full description in English
Description – French	N	TEXT	100	Full description in French
Language Flag	Y	TEXT	1	Possible values: E/F/B (English/French/Bilingual)

### 25.01.08 Event (Out)

Definition: Additional info describing the current Electoral Event.

Only one Initial data transfer.

Row Header				
Event Info				
Field Name	Compulsory (Y/N)	Data Type	Data Size	Notes
Event Identifier	Y	NUMBER	12	Unique identifier of the event
Event Type Identifier	Y	NUMBER	12	Represents the event type. E.g.: General Election, By-Election, etc.
Event Description English	N	TEXT	100	Event description in English
Event Description French	N	TEXT	100	Event description in French
Polling Date	Y	DATE		The event polling date.
Revision Start Date	Y	DATE		The start date and time of revision for this Electoral District.
Advance Polling Days	Y	TEXT	50	Comma separated list of Advance Polling Day numbers from the Event Calendar Example: 10,9,8,7
ED Identifier	N	NUMBER	12	Unique identifier of an Electoral District. ED defines the geographical area represented by each Member of



Row Header				
Event Info				
				Parliament. NOT NULL for By-Election event. NULL if the event is for all EDs.
ED Code	N	TEXT	5	ED code, the first 2 digits represent the <b>Province Identifier</b> , the next 3 are a sequence number for the ED within the province. NOT NULL for By-Election event. NULL if the event is for all EDs.

## 25.02. Data Dictionary – Contractor to EC

Data transferred from Contractor to EC.

### 25.02.01 Row Header Format

Each extract from Contractor to EC contains several common fields representing row header information to provide details about the current data set (batch), where the data is coming from and when it was created.

Field Name	Compulsory (Y/N)	Data Type	Data Size	Notes
Row Identifier	Y	NUMBER	12	Unique identifier of the row in the data set
Created Date	Y	DATE		Date and time when the row was added to the extract data set; converted to EST/EDT
Batch Identifier	Y	NUMBER	12	Unique identifier of the data extract
Polling Place Identifier	Y	NUMBER	12	Unique identifier of the Polling Place
Service Point Identifier	Y	NUMBER	12	Unique identifier of the Service Point
<i>Local Device Identifier</i>	<i>N</i>	<i>TEXT</i>	<i>50</i>	<i>Unique identifier of the local device where the Elector data change was recorded</i>
PPPE User Identifier	Y	NUMBER	12	User that changed the Elector data
<i>Associated PPPE User Identifier</i>	<i>N</i>	<i>NUMBER</i>	<i>12</i>	<i>Second user associated with the Elector data change</i>

Field Name	Compulsory (Y/N)	Data Type	Data Size	Notes
PPPE Created Date	Y	DATE		Date and time when the Elector data change was recorded in PPPE system; converted to EST/EDT

These fields are not listed in the data extract dictionaries to focus on the main business function data elements.

### 25.02.02 Elector Strike (In)

Definition: Electors that at Contractor's Central Server were:

- Marked as struck, and
- NO changes were done to ANY of the Elector's info (personal info, addresses, ED, PD, etc.).

Row Header				
Elector Strike Info				
Field Name	Compulsory (Y/N)	Data Type	Data Size	Notes
ED Identifier	Y	NUMBER	12	One of the values provided by EC
PD Identifier	Y	NUMBER	12	One of the values provided by EC (that belong to the ED)
Elector Identifier	Y	NUMBER	12	Unique Identifier of an Elector, passed back unchanged
Elector Transaction Log Identifier	N	NUMBER	12	Passed back unchanged
Sequence Number	N	NUMBER	4	Passed back unchanged
Elector Vote Status Identifier	Y	NUMBER	12	Values used: 1=Advance Poll; 2=Ordinary Poll day

### 25.02.03 Elector Change (In)

Definition: Electors that at Contractor's Central Server were:

- Marked as struck, and/or
- Elector was added at the Polling Place, or
- Changes were done to some of the Elector's info (personal info, addresses, etc.).

Row Header				
Elector State				
Field Name	Compulsory (Y/N)	Data Type	Data Size	Notes
ED Identifier	Y	NUMBER	12	One of the values provided by EC
PD Identifier	Y	NUMBER	12	One of the values provided by EC (that belong to the ED)
Elector Identifier	N	NUMBER	12	NULL for newly added Elector; otherwise NOT NULL and passed back unchanged
PPPE Elector Identifier	N	TEXT	30	NOT NULL for newly added Elector by Contractor.
Elector Transaction Log Identifier	N	NUMBER	12	NULL for newly added Elector; otherwise passed back unchanged
Sequence Number	N	NUMBER	4	NULL for newly added Elector; otherwise passed back unchanged
Elector Vote Status Identifier	Y	NUMBER	12	Represents how the Elector voted. One of the values provided in Reference Data (OUT), e.g.: add (2) for ordinary poll and (1) for Advance Poll, etc.
List Revision Status Identifier	N	NUMBER	12	Values used: A=Added or R=Removed; NULL for any other scenario
Personal Information				
Field Name	Compulsory (Y/N)	Data Type	Data Size	Notes
First Name	N	TEXT	50	First name
Middle Name	N	TEXT	50	Middle name
Last Name	Y	TEXT	100	Last name
Gender Identifier	Y	NUMBER	12	Elector gender, one of the values provided in Reference Data (OUT)
Date Of Birth Year	N	NUMBER	4	Date of birth year
Date Of Birth Month	N	NUMBER	2	Date of birth month
Date Of Birth Day	N	NUMBER	2	Date of birth day
Opt Out of Register Indicator	Y	TEXT	1	Elector opts out of being added to the register. Possible values: Y/N
Phone Number	N	TEXT	25	Elector phone number
Email Address	N	TEXT	255	Elector email address

Residential (Physical) Address				
Field Name	Compulsory (Y/N)	Data Type	Data Size	Notes
<i>Residential Address Identifier</i>	N	NUMBER	12	<i>Unique identifier of an Address in EC. NULL for newly created address, otherwise an existent value as provided by EC</i>
<i>PPPE Residential Address Identifier</i>	N	TEXT	30	<i>Unique identifier of an Address created by Contractor. NOT NULL for newly created address.</i>
Address Type Identifier	Y	NUMBER	12	Represents the address type associated with the address, one of the values provided in Reference Data (OUT)
<i>Municipality Identifier</i>	Y	NUMBER	12	<i>Municipality Identifier. An existent value provided by EC</i>
Municipality Name	Y	TEXT	100	Name of the municipality associated with the address
Municipality Type Identifier	N	NUMBER	12	Municipality type identifier
Province Identifier	Y	NUMBER	12	Unique identifier of the province
Postal Code	N	TEXT	6	Canada Post postal code
Lot	N	TEXT	4	The number of the lot along this concession within this place.
Concession	N	TEXT	4	The number of the concession within this place.
Township	N	TEXT	4	The number of the township in which this address exists.
Range	N	TEXT	3	The number of the range within this township in which this address exists.
Meridian	N	TEXT	2	The number of the meridian within this range on which this address exists.
Section	N	TEXT	5	The number of the section along this meridian on which this address exists. Section includes the quarter.
<i>Local Community Identifier</i>	N	NUMBER	12	<i>Local community identifier. An existent value as provided by EC</i>
Local Community Name	N	TEXT	100	Name of the local community
Local Community Province	N	NUMBER	12	Province of the local community. Required when <b>Local Community Name</b> is specified.

<i>Street Identifier</i>	N	NUMBER	12	<i>Street Identifier. NULL for newly created street (at least Street name should be NOT NULL in this case), otherwise an existent value as provided by EC</i>
<i>PPPE Street Identifier</i>	N	Text	30	<i>Street Identifier created by Contractor. NOT NULL for newly created street (at least Street Name should be NOT NULL in this case).</i>
Street Name	N	TEXT	50	Name of the street associated with the address
Street Type Identifier	N	NUMBER	12	Unique identifier of the street type, one of the values provided in Reference Data (OUT)
Street Direction Identifier	N	NUMBER	12	Unique identifier of the street direction, one of the values provided in Reference Data (OUT)
Street Number	N	TEXT	6	Physical building number of an address.
Street Number Suffix	N	TEXT	1	Suffix pertaining to a street address number (e.g. 1, A, 1/2).
Apartment/Suite	N	TEXT	6	Apartment, suite, or unit number of an address.
<b>Mailing Address</b>				
<b>Field Name</b>	<b>Compulsory (Y/N)</b>	<b>Data Type</b>	<b>Data Size</b>	<b>Notes</b>
Mailing Address Same as Residential Address Indicator	Y	TEXT	1	Possible values: Y/N. Set to Y when mailing Address is the same as the residential Address
<i>Mailing Address Identifier</i>	N	NUMBER	12	<i>For mailing addresses of type Civic only. Unique identifier of an address in EC. NULL for newly created address, otherwise an existent value as provided by EC</i>
<i>PPPE Mailing Address Identifier</i>	N	TEXT	30	<i>For mailing addresses of type Civic only. Unique identifier of an address created by Contractor. NOT NULL for newly created address.</i>
Address Type Identifier	Y	NUMBER	12	Represents the mailing address type associated with the address, one of the values provided in Reference Data

				(OUT)
<i>Municipality Identifier</i>	Y	NUMBER	12	<i>Municipality Identifier. An existent value provided by EC</i>
Municipality Name	Y	TEXT	100	Name of the municipality associated with the address
Municipality Type Identifier	N	NUMBER	12	Municipality type identifier
Province Identifier	Y	NUMBER	12	Unique identifier of the province
Postal Code	Y	TEXT	6	Canada Post postal code
Postal Station Type Identifier	N	NUMBER	12	Represents the postal installation type, one of the values provided in Reference Data (OUT)
Postal Station Name	N	TEXT	15	The combination of postal installation type and postal installation type name uniquely identifies an installation.
PO Box Number	N	TEXT	6	Postal service (PO Box) or route number. Used together with mailing <b>Address Type Identifier</b> .
Box	N	TEXT	15	Addition information for “rural route” delivery identifying the mail recipient’s compartment/box within a postal pickup site or group mailbox.
Compartment	N	TEXT	15	Addition information for “rural route” or “suburban service” delivery identifying the mail recipient compartment within a postal delivery site.
Group	N	TEXT	15	Addition information for “rural route” delivery identifying the location of a postal pickup site shared by a group of mail recipients.
Site	N	TEXT	15	Addition information for “rural route” or “suburban service” delivery identifying the location of a postal delivery site.
MR#/RR#/SS#	N	TEXT	6	Postal route type number
<i>Street Identifier</i>	N	NUMBER	12	<i>Street Identifier. NULL for newly created street (at least <b>Street Name</b> should be NOT NULL in this case), otherwise an existent value as provided by EC</i>

<i>PPPE Street Identifier</i>	<i>N</i>	<i>Text</i>	<i>30</i>	<i>Street Identifier created by Contractor. NOT NULL for newly created street (at least Street Name should be NOT NULL in this case).</i>
Street Name	N	TEXT	50	Name of the street associated with the address
Street Type Identifier	N	NUMBER	12	Unique identifier of the street type, one of the values provided in Reference Data (OUT)
Street Direction Identifier	N	NUMBER	12	Unique identifier of the street direction, one of the values provided in Reference Data (OUT)
Street Number	N	TEXT	6	Physical building number of an address.
Street Number Suffix	N	TEXT	1	Suffix pertaining to a street address number (e.g. 1, A, 1/2).
Apartment/Suite	N	TEXT	6	Apartment, suite, or unit number of an address.
Additional Delivery Information	N	TEXT	250	Address information for addresses that do not conform to the Canada Post nomenclature for Canadian addresses.

## ANNEX A – APPENDIX E.7 – Data Integration – Web Services

### 26. DATA INTEGRATION WEB SERVICES

In this section, an example of one option of data integration transmissions is presented, using the following W3C standard technologies for data transfer between EC and the Contractor: Restful Web Services, WebSockets, or Web Services. This document assumes that Restful Web Services will be used in the presumed Contractor E-Poll Solution, in the absence of available alternates. The Contractor may offer other products and approaches.

This section provides high-level view of the Restful Web Services interface used for data exchange between EC's data centre and the Contractor's data center.

#### 26.01. Overall Logical Architecture

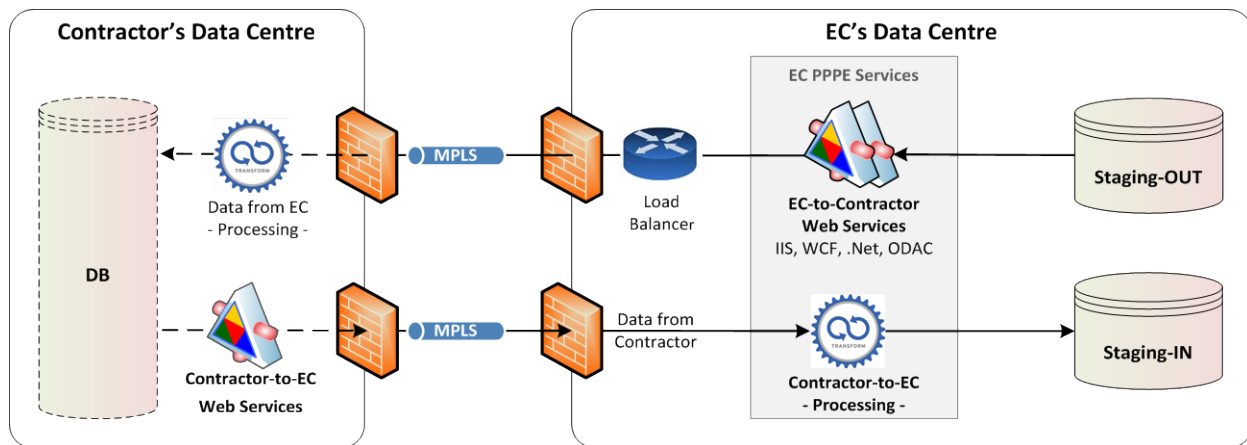


Figure 36 - PPPE Web Services – Overall Architecture

#### 26.02. Data Exchange Flow

The following flow applies to EC-to-Contractor data exchange (please see Figure 37 - PPPE REST Host Consumer Model). A similar flow is expected to apply to the Contractor-to-EC data exchange.

1. Host will expose Restful Web Services that communicate data
  - a. Host will expose one endpoint for each Consumer service
  - b. Host load balancers will distribute endpoint requests to service instances
2. Consumer service will initiate the data exchange with a request to the Host service
  - a. Consumer service will request the data from the respective Host service
  - b. There is no restriction on the number of requesting Consumer service instances
3. Host service will process the request from the Consumer service; it will:



- a. Validate the identity of the Consumer service
- b. Prepare, encrypt, and provide the data as arrays of records
4. Consumer service will process the data received from the Host service; it will:
  - a. Decrypt, validate, and process the received data
  - b. Respond to the Host service to:
    - i. Acknowledge that it successfully received the data, or
    - ii. Return an error identifying the affected record(s) and type of error
5. Host service will mark the records that were acknowledged as received by the Consumer service as such. In case of an error, Host service will:
  - a. Retry sending the affected records (this step is to be confirmed in design), or
  - b. Mark failed record(s) for further processing by EC based on the returned error

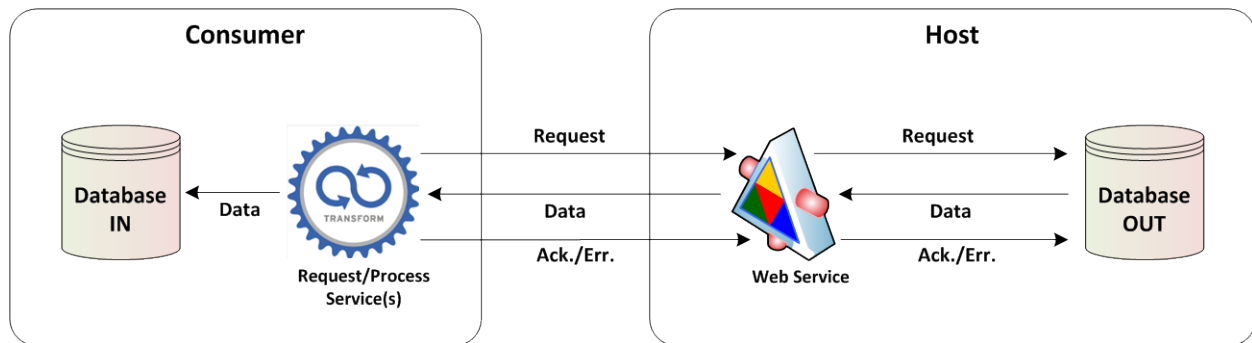


Figure 37 - PPPE REST Host Consumer Model

### 26.03. Data Exchange Rules

The following rules apply to the EC-to-Contractor data exchange. Similar rules are expected to apply to the Contractor-to-EC data exchange.

1. Host services must be available for consumption as per the provided Data Integration Calendar.
  - a. Host services must be blocked otherwise
  - b. Host must provide a mechanism to override the calendar in case of emergencies
2. Host services must be designed to optimize data exchange and reduce overhead.
3. Host services must respond within 2 seconds for each request.
4. Host services provided data must:
  - a. Be batched per request using a configurable number
  - b. Follow a compact JSON format
  - a. Follow specific schemas/contracts (e.g. field names and types)
  - b. Be prioritized to sync business-critical data first

5. Consumer services must handle duplicate data. This is required in case the same data is re-sent due to request timeout or any other reasons.
6. Consumer services must handle data conflicts. This is required in case the same records are updated by different sources.
7. Host services and Consumer services must provide a way to manually flag certain records for re-send in case of data corruption.

### 26.03.01 Contractor's Web Services

<i>Host</i>	Contractor's data centre
<i>Consumer</i>	EC's data centre (only)
<i>Methods</i>	
<i>GetStrikes</i>	Returns transactions for simple Elector Strikes
<i>GetChanges</i>	Returns transactions for other Elector Strikes and Elector changes (Add, Update)

### 26.03.02 EC's Web Services

<i>Host</i>	EC's data centre
<i>Consumer</i>	Contractor's data centre (only)
<i>Methods</i>	
<i>GetReferenceData</i>	Returns reference (lookup) data (codes, abbreviations, descriptions) in French and English
<i>GetUsers</i>	Returns Polling Place field system user and role data
<i>GetCandidates</i>	Returns Candidate data
<i>GetEventData</i>	Returns event data
<i>GetPollKeyData</i>	Returns Poll Key data (ED, PD, Polling Place) based on residential address
<i>GetPpPdData</i>	Returns Polling Place, Polling Division, and association data
<i>GetElectors</i>	Returns new and updated Elector data

## ANNEX A – APPENDIX E.8 – Data Integration – Validation Rules

### 27. DATA INTEGRATION - VALIDATION RULES

Note: **Bold** typeface is used for Field Names from ANNEX A – APPENDIX E.6 – Data Integration – Data Dictionaries.

#### 27.01. Validation Rules – EC to Contractor

##### 27.01.01 Reference Data components:

Field Name	Set Cardinality
Event Type Identifier	1-4
PS Split Type Identifier	1-3
List Revision Status Identifier	1, 2, 4, 16-23
Vote Status Identifier	1-5
Gender Identifier	1-3
Address Type Identifier (Residential)	1-3, 5
Address Type Identifier (Mailing)	10, 30, 31, 42-44, 50
Province Identifier	10-13, 24, 35, 46-48, 59-62
Local Province Identifier	10-13, 24, 35, 46-48, 59-62
Postal Station Type identifier	1-12
Street Direction Identifier	1-11
Street Type Identifier	1-170
Municipality Type Identifier	1-63

##### 27.01.02 Basic Validation Rules

- Enforced at the Web Service level
- If not met, the record is rejected at the Web Service level – marked as Error in Staging OUT structures, and it is not transferred to Contractor.

#	Rule	Comments
1	All data type and size requirements specified in data dictionaries must be met.	
2	All compulsory fields specified in the data dictionaries must be provided.	
3	Values for Reference Data (Code tables) must match the unique identifiers provided by EC on Initial Data Transfer from EC to Contractor (Reference Data-OUT	

#	Rule	Comments
	extract).	
4	The only possible values for Indicator fields are: Y (Yes) or N (No).	
5	All dates must be valid dates and must be provided in the EC time zone, expected to be EST/EDT.	If EC time zone changes from EST/EDT to a different time zone, then all dates must be converted to that time zone.
6	All data must be provided without leading or trailing empty spaces.	

### 27.01.03 Elector (Out)

Initial transfer contains Electors from EC that:

- Were on PLE - with their Current info, their PLE info, and all their approved changes since the PLE, or
- Were added to the list after the PLE – with all their approved changes, or
- Are potential Electors with a determined ED and PD – with all their changes.

Incremental transfer contains Electors from EC that:

- Were added and approved since last transfer, or
- Have approved changes performed at EC since last transfer

#	Transfer Type	Section on Data Dictionary	Rule	Comments
1	Initial, Incremental		One or more rows may be created for an Elector.	
2	Initial, Incremental		Only the most recent row created for an Elector may have <b>Active Indicator</b> set to Y; all other Elector rows must have <b>Active Indicator</b> set to N.	
3	Initial,		The combination <b>Elector Identifier</b> and <b>Elector Transaction Log Identifier</b>	

#	Transfer Type	Section on Data Dictionary	Rule	Comments
	Incremental		uniquely identifies an Elector row.	
4	Initial		All rows must have <b>Operation Flag</b> set to A (added).	
5	Incremental		<b>Operation Flag</b> must be set to either: A (added), U (updated) or D (deleted).	
6	Incremental		Elector data changed at EC must be provided to Contractor.	
7	Incremental		Elector data changed by Contractor that required manual review/updates at EC must be provided back to Contractor.	
8	Incremental		Elector data changed by Contractor that did NOT require manual review/updates at EC must NOT be provided back to Contractor.	
9	Incremental		<p>If a row with <b>Active Indicator</b> set to Y was provided for an Elector (on previous transfers), then any change for that Elector must be provided as:</p> <ul style="list-style-type: none"> <li>• An Update (<b>Operation Flag</b> set to U) to that row (<b>Active Indicator</b> set to N), and</li> <li>• An Add (<b>Operation Flag</b> set to A) of the new change; if the Elector is “on the list”, the <b>Active Indicator</b> is set to Y, otherwise it is set to N.</li> </ul>	
10	Incremental		Any <b>Municipality Name</b> or <b>Street Name</b> change only ( <b>Municipality Identifier</b> and <b>Street Identifier</b> don't change) on the Elector data must be provided as updates ( <b>Operation Flag</b> set to U) to the	

#	Transfer Type	Section on Data Dictionary	Rule	Comments
			Elector rows that were previously sent and contain the <b>Municipality Identifier</b> or <b>Street Identifier</b> .	
11	Incremental		Any <b>PS Identifier</b> or <b>PS Split Suffix</b> change only (due to poll management operations: poll splits, mergers, etc.) on the Elector data must be provided as updates ( <b>Operation Flag</b> set to U) to the Elector rows that were previously sent and are affected by this change.	
12	Initial, Incremental	Personal Information	Elector's last name, gender and opt out register indicator must be provided in the following separate fields: <ul style="list-style-type: none"> <li>• <b>Last Name</b></li> <li>• <b>Gender Identifier</b></li> <li>• <b>Opt Out of Register Indicator</b></li> </ul>	
13	Initial, Incremental	Personal Information	Additional personal info may be provided in these fields: <ul style="list-style-type: none"> <li>• <b>First Name</b></li> <li>• <b>Middle Name</b></li> <li>• <b>Date of Birth Year</b></li> <li>• <b>Date of Birth Month</b></li> <li>• <b>Date of Birth Day</b></li> <li>• <b>Phone Number</b></li> <li>• <b>Email Address</b></li> </ul>	
14	Initial, Incremental	Personal Information	The allowed characters for <b>First Name</b> , <b>Middle Name</b> and <b>Last Name</b> are:  <i>ABCDEFGHIJKLMN OPQRSTUVWXYZabcde  fghijklmnopqrstuvwxy zŠžšŽÿÀÁÂÃÄÅÇÈÉ  ÊËÌÍÎÏÐÑÒÓÔÕÖØÙÚÛÜÝàáâãäåçèéêëìí</i>	

#	Transfer Type	Section on Data Dictionary	Rule	Comments
			<i>ñòóôõöøùúûÿ- ‘</i>	
15	Initial, Incremental	Personal Information	Characters – and <i>space</i> cannot be on the first position for <b>First Name, Middle Name</b> and <b>Last Name</b> fields.	
16	Initial, Incremental	Personal Information	<b>Date of Birth Month</b> field must be an integer value, between 1 and 12 inclusively.	
17	Initial, Incremental	Personal Information	<b>Date of Birth Day</b> field must be an integer value, between 1 and 31 inclusively.	
18	Initial, Incremental	Personal Information	<b>Date of Birth Year, Date of Birth Month</b> and <b>Date of Birth Day</b> must constitute a valid date that is not in the future.	
19	Initial, Incremental	Residential Address	Residential address must be provided.	
20	Initial, Incremental	Mailing Address	Mailing address must be provided.	
21	Initial, Incremental	Residential Address, Mailing Address	<b>Address Type Identifier</b> must be provided.	
22	Initial, Incremental	Residential Address, Mailing Address	<b>Postal Code</b> field must be 6 characters long, in uppercase and in the following format:  LNLNLN (L=letter, N=number)	

#	Transfer Type	Section on Data Dictionary	Rule	Comments
23	Initial, Incremental	Residential Address	If <b>Address Type Identifier</b> provided is 1 (Civic), then only the following may be provided as separate fields: <ul style="list-style-type: none"> <li>• <b>Street Name</b></li> <li>• <b>Street Number</b></li> <li>• <b>Municipality</b></li> <li>• <b>Municipality Type Identifier</b></li> <li>• <b>Postal Code</b></li> <li>• <b>Province Identifier</b></li> <li>• <b>Apartment/Suite</b></li> <li>• <b>Street Type Identifier</b></li> <li>• <b>Street Direction Identifier</b></li> <li>• <b>Street Number Suffix</b></li> </ul>	All other residential address fields must be NULL.
24	Initial, Incremental	Residential Address	If <b>Address Type Identifier</b> provided is 1 (Civic), then the following must be provided as separate fields: <ul style="list-style-type: none"> <li>• <b>Street Name</b></li> <li>• <b>Street Number</b></li> <li>• <b>Municipality</b></li> <li>• <b>Postal Code</b> – only if the residential address is also used as mailing address</li> <li>• <b>Province Identifier</b></li> </ul>	
25	Initial, Incremental	Residential Address	If <b>Address Type Identifier</b> provided is 1 (Civic) or 3 (Non-Conforming) then the following may be provided as separate fields: <ul style="list-style-type: none"> <li>• <b>Local Community Name</b></li> <li>• <b>Local Community Province Identifier</b></li> </ul>	



#	Transfer Type	Section on Data Dictionary	Rule	Comments
26	Initial, Incremental	Residential Address	<p>If <b>Address Type Identifier</b> provided is 2 (Lot and Concession), then only the following must be provided as separate fields:</p> <ul style="list-style-type: none"> <li>• <b>Lot</b></li> <li>• <b>Concession</b></li> <li>• <b>Municipality (Township)</b></li> <li>• <b>Municipality Type Identifier</b></li> <li>• <b>Province Identifier</b></li> </ul>	<p>All other residential address fields must be NULL.</p> <p>All these addresses must have municipalities with <b>Municipality Type Identifier</b> = 63 and <b>Province Identifier</b> = 35 (Ontario).</p>
27	Initial, Incremental	Residential Address	<p>If <b>Address Type Identifier</b> provided is 3 (Non-Conforming), then only the following may be provided as separate fields:</p> <ul style="list-style-type: none"> <li>• <b>Municipality</b></li> <li>• <b>Municipality Type Identifier</b></li> <li>• <b>Province Identifier</b></li> <li>• <b>Postal Code</b></li> </ul>	<p>All other residential address fields must be NULL.</p>
28	Initial, Incremental	Residential Address	<p>If <b>Address Type Identifier</b> provided is 3 (Non-Conforming), then the following must be provided as separate fields:</p> <ul style="list-style-type: none"> <li>• <b>Municipality</b></li> <li>• <b>Province Identifier</b></li> </ul>	
29	Initial, Incremental	Residential Address	<p>If <b>Address Type Identifier</b> provided is 5 (Section Township Range Meridian), then only the following may be provided as separate fields:</p> <ul style="list-style-type: none"> <li>• <b>Section</b></li> <li>• <b>Township</b></li> <li>• <b>Range</b></li> <li>• <b>Meridian</b></li> </ul>	<p>All other residential address fields must be NULL.</p> <p>Section field includes the Quarter info.</p> <p>Only valid <b>Province</b></p>

#	Transfer Type	Section on Data Dictionary	Rule	Comments
			<ul style="list-style-type: none"> <li>• <b>Municipality</b></li> <li>• <b>Municipality Type Identifier</b></li> <li>• <b>Province Identifier</b></li> </ul>	<b>Identifiers</b> are: 46, 47, 48, and 59 (MB, SK, AB, and BC).
30	Initial, Incremental	Residential Address	If <b>Address Type Identifier</b> provided is 5 (Section Township Range Meridian), then only the following must be provided as separate fields: <ul style="list-style-type: none"> <li>• <b>Section</b></li> <li>• <b>Township</b></li> <li>• <b>Range</b></li> <li>• <b>Meridian</b></li> <li>• <b>Municipality</b></li> <li>• <b>Province Identifier</b></li> </ul>	
31	Initial, Incremental	Mailing Address	If Address Type Identifier provided is 10 (Civic), then only the following may be provided as separate fields: <ul style="list-style-type: none"> <li>• <b>Street Name</b></li> <li>• <b>Street Number</b></li> <li>• <b>Municipality</b></li> <li>• <b>Municipality Type Identifier</b></li> <li>• <b>Postal Code</b></li> <li>• <b>Province Identifier</b></li> <li>• <b>Apartment/Suite</b></li> <li>• <b>Street Type Identifier</b></li> <li>• <b>Street Direction Identifier</b></li> <li>• <b>Street Number Suffix</b></li> </ul>	All other mailing address fields must be NULL.
32	Initial, Incremental	Mailing Address	If <b>Address Type Identifier</b> provided is 10 (Civic), then the following must be provided as separate fields: <ul style="list-style-type: none"> <li>• <b>Street Name</b></li> <li>• <b>Street Number</b></li> </ul>	

#	Transfer Type	Section on Data Dictionary	Rule	Comments
			<ul style="list-style-type: none"> <li>• <b>Municipality</b></li> <li>• <b>Postal Code</b></li> <li>• <b>Province Identifier</b></li> </ul>	
33	Initial, Incremental	Mailing Address	If <b>Address Type Identifier</b> provided is 30 (PO Box), then only the following may be provided as separate fields: <ul style="list-style-type: none"> <li>• <b>PO Box Number</b></li> <li>• <b>Additional Delivery information</b></li> <li>• <b>Postal Station Type Identifier</b></li> <li>• <b>Postal Station Name</b></li> <li>• <b>Municipality</b></li> <li>• <b>Municipality Type Identifier</b></li> <li>• <b>Postal Code</b></li> <li>• <b>Province Identifier</b></li> </ul>	All other mailing address fields must be NULL.
34	Initial, Incremental	Mailing Address	If <b>Address Type Identifier</b> provided is 30 (PO Box), then the following must be provided as separate fields: <ul style="list-style-type: none"> <li>• <b>PO Box Number</b></li> <li>• <b>Municipality</b></li> <li>• <b>Postal Code</b></li> <li>• <b>Province Identifier</b></li> </ul>	
35	Initial, Incremental	Mailing Address	If <b>Address Type Identifier</b> provided is 42 (Mobile Route), 43 (Rural Route), 44 (Suburban Service), then only the following may be provided as separate fields: <ul style="list-style-type: none"> <li>• <b>Additional Delivery information</b></li> <li>• <b>Site</b></li> <li>• <b>Compartment</b></li> <li>• <b>Group</b></li> <li>• <b>Box</b></li> </ul>	All other mailing address fields must be NULL.

#	Transfer Type	Section on Data Dictionary	Rule	Comments
			<ul style="list-style-type: none"> <li>• <b>MR#/RR#/SS#</b></li> <li>• <b>Postal Station Type Identifier</b></li> <li>• <b>Postal Station Name</b></li> <li>• <b>Municipality</b></li> <li>• <b>Municipality Type Identifier</b></li> <li>• <b>Postal Code</b></li> <li>• <b>Province Identifier</b></li> </ul>	
36	Initial, Incremental	Mailing Address	If <b>Address Type Identifier</b> provided is 42 (Mobile Route), 43 (Rural Route), 44 (Suburban Service), then the following must be provided as separate fields: <ul style="list-style-type: none"> <li>• <b>MR#/RR#/SS#</b></li> <li>• <b>Municipality</b></li> <li>• <b>Postal Code</b></li> <li>• <b>Province Identifier</b></li> </ul>	
37	Initial, Incremental	Mailing Address	If <b>Address Type Identifier</b> provided is 50 (General Delivery), then only the following may be provided as separate fields: <ul style="list-style-type: none"> <li>• <b>Additional Delivery Information</b></li> <li>• <b>Postal Station Type Identifier</b></li> <li>• <b>Postal Station Name</b></li> <li>• <b>Municipality</b></li> <li>• <b>Municipality Type Identifier</b></li> <li>• <b>Postal Code</b></li> <li>• <b>Province Identifier</b></li> </ul>	All other mailing address fields must be NULL.
38	Initial, Incremental	Mailing Address	If <b>Address Type Identifier</b> provided is 50 (General Delivery), then the following must be provided as separate fields: <ul style="list-style-type: none"> <li>• <b>Municipality</b></li> <li>• <b>Postal Code</b></li> </ul>	

#	Transfer Type	Section on Data Dictionary	Rule	Comments
			<ul style="list-style-type: none"> <li><b>Province Identifier</b></li> </ul>	
39	Initial, Incremental	Residential Address, Mailing Address	The value provided for <b>Street Number</b> field must be a number.	
40	Initial, Incremental	Residential Address, Mailing Address	The value provided for <b>Street Number Suffix</b> field must be one of the following:  ¼, ½, ¾, A, ..., Z	
41	Initial, Incremental	Residential Address	The value provided for <b>Section</b> field may start with:  N, W, S, E, NE, NW, SE, SW.  A two digit number must be provided (following the Letters mentioned above when provided):  01, ..., 36	Examples: 22, 07, N01, SE07, SW09, NE10, N12, W25
42	Initial, Incremental	Residential Address	The value provided for <b>Township</b> field must be one of the following values:  01, ..., 19, 19A, 20, ..., 27, 27A, 28, ..., 42, 42A, 43, 43A, 44, 45, 45A, 46, 46A, 47, 47A, 48, ..., 126	
43	Initial, Incremental	Residential Address	The value provided for <b>Range</b> must be one of the following values:  01, ..., 13, 13A, 14, ..., 21, 21A, 22, 23, 24, 24A, 25, ..., 29, 29A, 30, ..., 34	
44	Initial, Incremental	Residential Address	The value provided for <b>Meridian</b> field must be one of the following values:	

#	Transfer Type	Section on Data Dictionary	Rule	Comments
			E1, W1, W2, W3, W4, W5, W6	
45	Initial, Incremental	Mailing Address	The value provided for <b>PO Box Number</b> field must be a number	
46	Initial, Incremental	Mailing Address	When <b>Postal Station Name</b> is provided then <b>Postal Station Type Identifier</b> must be provided as well.	
47	Initial, Incremental	Mailing Address	<b>Mailing Address Same as Residential Address Indicator</b> must be provided.	A Y or N value must be provided.
48	Initial, Incremental	Residential Address, Mailing Address	First letter in <b>Postal Code</b> field must correspond to the <b>Province Identifier</b> as follows:  A – 10; B – 12; C – 11; E – 13;  G, H, J – 24; K, L, M, N, P – 35;  R – 46; S – 47; T – 48; V – 59;  X – 61, 62; Y – 60.	
49	Initial, Incremental	Personal Information	The fields <b>Parsed Last Name, Parsed Middle Name, Parsed Last Name</b> must follow the following algorithm: <ul style="list-style-type: none"> <li>• Convert to Uppercase;</li> <li>• Strip out special characters: { } [ ] ( ) , ; ! @ # \$ % &amp; * ^ \   + &lt; &gt; . ' " -</li> <li>• Replace accented characters as per table "<i>Parsed Character Mapping</i>";</li> </ul> Convert different spelling of Saint (SAINTE, SAINT, STE) to ST.	
50	Initial, Incremental	Residential Address, Mailing	The fields <b>Parsed Municipality Name, Parsed Street Name</b> must follow the	

#	Transfer Type	Section on Data Dictionary	Rule	Comments
		Address	<p>following algorithm:</p> <ul style="list-style-type: none"> <li>• Convert to Uppercase;</li> <li>• Move these articles and prepositions to the end of the parsed name:</li> </ul> <p>DE LA, DE L', DES, LES, AUX, DE, DU, LE, LA, ET, AU, L, L', D', À</p> <ul style="list-style-type: none"> <li>• Strip out special characters:</li> <li>• {}[](),;:;!@#\$?&amp;*^ +&lt;&gt;.'"'-</li> <li>• Replace accented characters as per table "Parsed Character Mapping"</li> <li>• Convert different spelling of Saint (SAINTE, SAINT, STE) to ST.</li> <li>• Convert ordinal numbers to cardinal numbers as per table "Parsed Character Mapping"</li> </ul> <p>If the string starts with a number, left-pad with 0 (zero) to a length of 6.                      Example: 12 STREET becomes 000012 STREET.</p>	

Characters	Parsed Character
É	E
È	E
Ê	E
Ë	E
Ç	C
À	A
Â	A

Characters	Parsed Character
Ô	O
Ö	O
Û	U
Ù	U
Ü	U
Ï	I
Î	I

Characters	Parsed Character
1 <sup>ST</sup>	1
1ER	1
1IERE	1
1ERE	1
1E	1
1RE	1
1TH	1
2 <sup>ND</sup>	2
2TH	2
2E	2
2IEME	2
3 <sup>RD</sup>	3
3TH	3
3E	3
3IEME	3
4 <sup>TH</sup>	4
4E	4
4IEME	4

Characters	Parsed Character
5TH	5
5E	5
5IEME	5
6TH	6
6E	6
6IEME	6
7TH	7
7E	7
7IEME	7
8TH	8
8E	8
8IEME	8
9TH	9
9E	9
9IEME	9
0TH	0
0E	0
0IEME	0

**27.02. Table: Parsed Character Mapping**

**27.02.01 Poll Key (Out)**

Initial transfer: All street and street segments existent at EC.

Incremental transfer: All changes since the last transfer.



#	Transfer Type	Rule	Comments
1	Initial	All rows must have <b>Operation Flag</b> set to A (added).	
2	Incremental	<b>Operation Flag</b> must be set to either: A (added), U (updated) or D (deleted).	
3	Initial, Incremental	<b>ED Identifier</b> and <b>ED Code</b> , Ordinary <b>PD Identifier</b> , <b>Ordinary PD Number</b> and <b>Ordinary PD Number Suffix</b> must be provided.	
4	Initial, Incremental	<b>Street Name</b> and <b>Street Side</b> must be provided	
5	Initial, Incremental	When both provided, the numeric value of the <b>From Street Address Number</b> must be less than or equal to the <b>To Street Address Number</b>	

**27.02.02 Polling Place – PD (Out)**

Initial transfer: All Polling Places existent at EC and their info: their names, opening and closing hours, addresses (as it appears on VIC), and Polling Divisions they are associated with.

Incremental transfer: All changes since the last transfer.

#	Transfer Type	Rule	Comments
1	Initial	All rows must have <b>Operation Flag</b> set to A (added).	
2	Incremental	<b>Operation Flag</b> must be set to either: A (added), U (updated) or D (deleted).	
3	Initial, Incremental	<b>Polling Place Type Flag</b> field must be set to A for Advance Polling Places and	

#	Transfer Type	Rule	Comments
		to O for Ordinary Polling Places.	
4	Initial, Incremental	If a poll is not mobile ( <b>Mobile Poll Indicator</b> set to N) and it has no splits, then the <b>PD Identifier</b> for that poll must be linked to only one Advance Polling Place (A) and only one Ordinary Polling Place (O).	
5	Initial, Incremental	If a poll is mobile ( <b>Mobile Poll Indicator</b> set to Y), then the <b>PD Identifier</b> for that poll must be linked to only one Advance Polling Place (A) and one or more Ordinary Polling Places (O).	
6	Initial, Incremental	If a poll is not mobile ( <b>Mobile Poll Indicator</b> set to N) and it has splits, then the <b>PD Identifier</b> for that poll must be linked to one or more Advance Polling Place (A) and one or more Ordinary Polling Place (O).	
7	Initial, Incremental	If the <b>PS Split Type Identifier</b> is 1 (Geo Split), then:  Either <b>Start Address</b> or <b>End Address</b> or both these fields must be provided, and  <b>Start Last Name</b> and <b>End Last Name</b> must be NULL	When <b>Start Address</b> field is NULL it is considered "Beginning of the List".  When <b>End Address</b> field is NULL it is considered "End of the List".
8	Initial, Incremental	Either <b>Start Last Name</b> or <b>End Last Name</b> or both these fields must be provided, and <b>Start Address</b> and <b>End Address</b> must be NULL.	When <b>Start Last Name</b> field is NULL it is considered "Beginning of the List".  When <b>End Last Name</b> field is NULL it is considered "End of the List".

#	Transfer Type	Rule	Comments
9	Initial, Incremental	If the <b>PS Split Type Identifier</b> is 3 (Exclude Building Split), then <b>Start Last Name, End Last Name, Start Address, and End Address</b> fields must be NULL.	

Limitations:

The extract does not include information to determine Elector’s exact polling station in case of exclude Building Splits and Mobile Polls associated with buildings.

### 27.02.03 User (Out)

Initial transfer: All PPPE users created at EC.

Incremental transfer: All changes since the last transfer.

#	Transfer Type	Rule	Comments
1	Initial, Incremental	<b>Filed Username</b> uniquely identifies a row.	
2	Initial	All rows must have <b>Operation Flag</b> set to A (added).	
3	Incremental	<b>Operation Flag</b> must be set to either: A (added), U (updated) or D (deleted).	

### 27.02.04 Reference Data (Out)

Definition: Reference data created at EC used by Contractor: codes, English and French names and abbreviations.

Only one initial data transfer.

Examples: Address Types, Provinces, Genders, Street Types, Vote Status, etc.

#	Rule	Comments
1	The combination <b>Reference Column Name</b> and <b>Reference Column Value</b> uniquely identifies a row.	

### 27.02.05 Candidate (Out)

Initial transfer: All Candidates created at EC and their info: name and political party they represent.

Incremental transfer: All changes since the last transfer.

#	Transfer Type	Rule	Comments
1	Initial, Incremental	The combination <b>Candidate Name</b> and <b>ED Identifier</b> uniquely identifies a row.	
2	Initial	All rows must have <b>Operation Flag</b> set to A (added).	
3	Incremental	<b>Operation Flag</b> must be set to either: A (added), U (updated) or D (deleted).	

### 27.02.06 Event (Out)

Definition: Event related information: Event name, revision date, Advance Poll days, etc.

Only one initial data transfer.

#	Rule	Comments
1	The combination <b>Event Identifier</b> and <b>ED Identifier</b> uniquely identifies a row.	
2	<b>ED Identifier</b> must be set to NULL if the <b>Event Type Identifier</b> is different than 3 (By-Election).	
3	<b>ED Identifier</b> must be set to a NOT NULL value if <b>Event Type Identifier</b> is 3 (By-Election). In that case the data extract must have one row for each ED participating in the event.	

**27.03. Validation Rules – Contractor to EC**

**27.03.01 Basic Validation Rules**

- Enforced at the Web Service level
- If not met, the record is rejected at the Web Service level - not saved in Staging-IN structures

#	Rule	Comments
1	All data type and size requirements specified in data dictionaries must be met.	
2	ED, PD, and all compulsory fields specified in the data dictionaries must be provided.	
3	Values for Reference Data (Code tables) must match the unique identifiers provided by EC on Initial Data Transfer from EC to Contractor.	
4	Unique identifiers must match one of the correspondent values provided by EC.	Exception: New <b>User Identifiers</b> may be created by Contractor (not provided by EC).
5	The only possible values for Indicator fields are: Y (Yes) or N (No).	
6	All dates must be valid dates and must be provided in the EC time zone, expected to be EST/EDT.	If EC time zone changes from EST/EDT to a different time zone, then all dates must be converted to that time zone.
7	All data must be provided without leading or trailing empty spaces.	

**27.03.02 Elector Strike (In)**

Definition: Electors that at Contractor’s Central Server were:

- Marked as struck, and
- NO changes were done to ANY of the Elector’s info (personal info, addresses, ED, PD, etc.)

#	Scenario	Rule	Comments
1	Strike-Only	<b>Elector Identifier, ED Identifier, PD Identifier, Sequence Number, and Elector Transaction Log Identifier</b> must match exactly the data provided by EC in the Elector (Out) row.	
2	Strike-Only	<b>Elector Vote Status</b> must be set to Voted-Advanced (for Advance Polls) or Voted-Ordinary (for Election day).	

### 27.03.03 Elector Change (In)

Definition: Electors that at Contractor’s Central Server were:

- Marked as struck, and/or
- Elector was added at the Polling Place, or
- Changes were done to some of the Elector’s info (personal info, addresses, etc.)
  - Residential Address = PA
  - Mailing Address = MA

#	Scenario	Section on Data Dictionary	Rule	Comments
1	Correction	Elector State	Elector Identifier, ED Identifier, PD Identifier, Sequence Number, and Elector Transaction Log Identifier must match exactly the data provided from EC in the Elector (Out) row.	
2	Registration	Elector State	List Revision Status Identifier must be set to 1 (added).	
3	Correction	Elector State	If the Elector is removed from the list, then List Revision Status Identifier must be set to 2 (removed), otherwise this field should be set to NULL.	

#	Scenario	Section on Data Dictionary	Rule	Comments
4	Registration, Correction	Personal Information	Elector's Last Name, Gender and Opt Out of Register Indicator must be provided in the following separate fields:  Last Name Gender Identifier Opt Out of Register Indicator  Opt Out of Register Indicator can be set only on Registration	
5	Registration, Correction	Personal Information	Additional personal info may be provided in these fields:  First Name Middle Name Date of Birth Year Date of Birth Month Date of Birth Day Phone Number Email Address	
6	Correction	Personal Information	If the information in any of the following fields has not changed, the values supplied by EC must be provided:  Last Name First Name Date of Birth Year Date of Birth Month Date of Birth Day Gender Identifier Opt Out of Register Indicator Middle Name Phone Number	If Null value was provided by EC and no change was made at Contractor, then NULL value should be sent back to EC.

#	Scenario	Section on Data Dictionary	Rule	Comments
			Email Address	
7	Registration, Correction	Personal Information	A Y or N value must be provided in the Opt Out of Register Indicator field.	
8	Registration	Personal Information	ED Identifier and PD Identifier must be provided.	
9	Registration	Personal Information	Elector Identifier and Elector Transaction Log Identifier may be provided if the Elector is found but does not belong to the list in the Polling Place he voted. In that case, the two fields must match exactly the data provided from EC.	
10	Registration	Personal Information	Elector Identifier and Elector Transaction Log Identifier must be NULL if the Elector is NOT found in the data provided from EC.	
11	Registration, Correction	Personal Information	The allowed characters for First Name, Middle Name and Last Name are:  ABCDEFGHIJKLMNOPQRSTUVWXYZ ZabcdefghijklmnopqrstuvwxyzŠšž ŸÀÁÂÃÄÅÇÈÉÊËÌÍÎÏÐÑÒÓÔÕÖØÙÚ ÛÜÝàáâãäåçèéêëìíîïðóôõöøùúüý ÿ- ‘	
12	Registration, Correction	Personal Information	Characters – and space cannot be on the first and last position for First Name, Middle Name and Last Name fields.	



#	Scenario	Section on Data Dictionary	Rule	Comments
13	Registration, Correction	Personal Information	Date of Birth Month field must be an integer value, between 1 and 12 inclusively.	
14	Registration, Correction	Personal Information	Date of Birth Day field must be an integer value, between 1 and 31 inclusively.	
15	Registration, Correction	Personal Information	Date of Birth Year, Date of Birth Month and Date of Birth Day must constitute a valid date that is not in the future.	
16	Registration, Correction	Residential Address	Residential address must be provided.	
17	Registration, Correction	Mailing Address	Mailing address must be provided.	
18	Registration, Correction	Residential Address, Mailing Address	Address Type Identifier must be provided.	
19	Registration, Correction	Residential Address, Mailing Address	Postal Code field must be 6 characters long and in the following format:  LNLNLN (L=letter, N=number)	
20	Registration, Correction	Residential Address	If Address Type Identifier provided is 1 (Civic), then only the following may be provided as separate fields:  Street Name Street Number Municipality Municipality Type Identifier	All other residential address fields must be NULL.

#	Scenario	Section on Data Dictionary	Rule	Comments
			Postal Code Province Identifier Apartment/Suite Street Type Identifier Street Direction Identifier Street Number Suffix	
21	Registration, Correction	Residential Address	If Address Type Identifier provided is 1 (Civic), then the following must be provided as separate fields:  Street Name Street Number Municipality Postal Code – only if the residential address is also used as mailing address Province Identifier	When <b>Mailing Address Same as Residential Address Indicator</b> is set to Y then <b>Postal Code</b> must be provided as well.
22	Registration, Correction	Residential Address	If Address Type Identifier provided is 1 (Civic) or 3 (Non-Conforming) then the following may be provided as separate fields:  Local Community Name Local Community Province Identifier	
23	Registration, Correction	Residential Address	If <b>Address Type Identifier</b> provided is 2 (Lot and Concession), then only the following must be provided as separate fields:  Lot Concession Municipality (Township) Municipality Type Identifier	All other residential address fields must be NULL.  All these addresses must have municipalities with <b>Municipality Type</b>

#	Scenario	Section on Data Dictionary	Rule	Comments
			Province Identifier	<b>Identifier</b> = 63 and <b>Province Identifier</b> = 35 (Ontario).
24	Registration, Correction	Residential Address	If <b>Address Type Identifier</b> provided is 3 (Non-Conforming), then only the following may be provided as separate fields:  Municipality Municipality Type Identifier Province Identifier Postal Code	All other residential address fields must be NULL.
25	Registration, Correction	Residential Address	If <b>Address Type Identifier</b> provided is 3 (Non-Conforming), then the following must be provided as separate fields:  Municipality Province Identifier	
26	Registration, Correction	Residential Address	If <b>Address Type Identifier</b> provided is 5 (Section Township Range Meridian), then only the following may be provided as separate fields:  Section Township Range Meridian Municipality Municipality Type Identifier Province Identifier	All other residential address fields must be NULL.  Section field includes the quarter info.  Only valid <b>Province identifiers</b> are: 46, 47, 48, and 59 (MB, SK, AB, and BC).
27	Registration,	Residential	If <b>Address Type Identifier</b> provided is 5 (Section Township	

#	Scenario	Section on Data Dictionary	Rule	Comments
	Correction	Address	Range Meridian), then only the following must be provided as separate fields:  Section Township Range Meridian Municipality Province Identifier	
28	Registration, Correction	Mailing Address	<b>Mailing Address Same as Residential Address Indicator</b> must be provided.	A Y or N value must be provided.
29	Registration, Correction	Mailing Address	If <b>Address Type Identifier</b> provided is 10 (Civic), then only the following may be provided as separate fields:  Street Name Street Number Municipality Municipality Type Identifier Postal Code Province Identifier Apartment/Suite Street Type Identifier Street Direction Identifier Street Number Suffix	All other mailing address fields must be NULL.
30	Registration, Correction	Mailing Address	If <b>Address Type Identifier</b> provided is 10 (Civic), then the following must be provided as separate fields:  Street Name Street Number	

#	Scenario	Section on Data Dictionary	Rule	Comments
			Municipality Postal Code Province Identifier	
31	Registration, Correction	Mailing Address	If <b>Address Type Identifier</b> provided is 30 (PO Box), then only the following may be provided as separate fields:  PO Box Number Additional Delivery information Postal Station Type Identifier Postal Station Name Municipality Municipality Type Identifier Postal Code Province Identifier	All other mailing address fields must be NULL.
32	Registration, Correction	Mailing Address	If <b>Address Type Identifier</b> provided is 30 (PO Box), then the following must be provided as separate fields:  PO Box Number Municipality Postal Code Province Identifier	
33	Registration, Correction	Mailing Address	If <b>Address Type Identifier</b> provided is 42 (Mobile Route), 43 (Rural Route), 44 (Suburban Service), then only the following may be provided as separate fields:  Additional Delivery information Site Compartment	All other mailing address fields must be NULL.

#	Scenario	Section on Data Dictionary	Rule	Comments
			Group Box MR#/RR#/SS# Postal Station Type Identifier Postal Station Name Municipality Municipality Type Identifier Postal Code Province Identifier	
34	Registration, Correction	Mailing Address	If <b>Address Type Identifier</b> provided is 42 (Mobile Route), 43 (Rural Route), 44 (Suburban Service), then the following must be provided as separate fields:  MR#/RR#/SS# Municipality Postal Code Province Identifier	
35	Registration, Correction	Mailing Address	If <b>Address Type Identifier</b> provided is 50 (General Delivery), then only the following may be provided as separate fields:  Additional Delivery information Postal Station Type Identifier Postal Station Name Municipality Municipality Type Identifier Postal Code Province Identifier	All other mailing address fields must be NULL.
36	Registration, Correction	Mailing Address	If <b>Address Type Identifier</b> provided is 50 (General Delivery), then the following must be	

#	Scenario	Section on Data Dictionary	Rule	Comments
			provided as separate fields:  Municipality Postal Code Province Identifier	
37	Registration, Correction	Residential Address,  Mailing Address	<b>Municipality</b> must match one of the values provided by EC.	
38	Registration, Correction	Residential Address,  Mailing Address	When an existing address is used, then all address fields must match exactly the correspondent values provided by EC.	
39	Registration, Correction	Residential Address,  Mailing Address	The value provided for <b>Street Number</b> field must be a number.	
40	Registration, Correction	Residential Address,  Mailing Address	The value provided for <b>Street Number Suffix</b> must be one of the following:  $\frac{1}{4}$ , $\frac{1}{2}$ , $\frac{3}{4}$ , A, ..., Z	
41	Registration, Correction	Residential Address	The value provided for <b>Section</b> field may start with:  N, W, S, E, NE, NW, SE, SW.  A two digit number must be provided (following the Letters mentioned above when provided):  01, ..., 36	Exemples: 22, 07, N01, SE07, SW09, NE10, N12, W25
42	Registration, Correction	Residential Address	The value provided for <b>Township</b> field must be one of the following values:	

#	Scenario	Section on Data Dictionary	Rule	Comments
			01, ..., 19, 19A, 20, ..., 27, 27A, 28, ..., 42, 42A, 43, 43A, 44, 45, 45A, 46, 46A, 47, 47A, 48, ..., 126	
43	Registration, Correction	Residential Address	The value provided for <b>Range</b> must be one of the following values:  01, ..., 13, 13A, 14, ..., 21, 21A, 22, 23, 24, 24A, 25, ...,29, 29A, 30, ...,34	
44	Registration, Correction	Residential Address	The value provided for <b>Meridian</b> field must be one of the following values:  E1, W1, W2, W3, W4, W5, W6	
45	Registration, Correction	Mailing Address	The value provided for <b>PO Box Number</b> field must be a number	
46	Registration, Correction	Mailing Address	When <b>Postal Station Name</b> is provided then <b>Postal Station Type Identifier</b> must be provided as well.	
47	Registration, Correction	Residential Address, Mailing Address	First letter in <b>Postal Code</b> field must correspond to the <b>Province Identifier</b> as follows:  A – 10; B – 12; C – 11; E – 13;  G, H, J – 24; K, L, M, N, P – 35;  R – 46; S – 47; T – 48; V – 59;  X – 61, 62; Y – 60.	



## **ANNEX A – APPENDIX E.9 – SECURITY REQUIREMENTS (Revised July 26, 2017)**

### **28. SECURITY REQUIREMENTS**

#### **28.01. SA&A Program and SA&A Compliance**

The Contractor must participate in the EC Security Assessment and Authorization (SA&A) program as it relates to the E-Poll Solution. The EC SA&A program is based upon the Information System Security Implementation Process (ISSIP) found in Annex 2 of ITSG-33 <https://www.cse-cst.gc.ca/en/publication/itsg-33>. In order to ensure that adequate security controls are in place, EC has developed a baseline Security Control Profile (SCP), based upon the controls and methodologies from the Communications Security Establishment (CSE) guidance document: ITSG-33, IT Security Risk Management: A Lifecycle Approach.

To ensure the quality and timely development of the security deliverables, the Contractor must contract the services of a **3rd Party SA&A Compliance Specialist** per Section 9.05 of the SOW to function as the point of contact for SA&A activities. Although the **3rd Party SA&A Compliance Specialist** will assess the Contractor's compliance to the principles and controls in the SCP, EC is the final authority on the sufficiency of evidence supplied in support of compliance and the E-Poll Solution's prime assessor.

#### **28.02. Risk Management**

The Contractor must maintain the security posture of the Service through continuous monitoring and annual audit of the implemented security requirements. This includes, but is not limited to:

- a. Monitoring Threats and Vulnerabilities;
- b. Proactive Threat mitigation measures;
- c. Reporting any security issues to the EC IT Security Coordinator immediately upon learning of their existence; and
- d. Tracking and reporting progress to the EC IT Security Coordinator until each security issue is fixed or mitigated.

#### **28.03. Access Control**

The Contractor must have a process to manage and monitor privileged access to the solution. This includes but is not limited to:

- a. Enforcing and auditing approved authorizations for logical access to the solution;
- b. Granting and limiting access only to authorized devices and users with an explicit need to have access;
- c. Monitoring for unauthorized remote access or remote management and expeditiously disconnecting or disabling unauthorized remote access;
- d. Routing of all remote access through a limited number of managed access control points.
- e. Implementing multifactor authentication for privileged data center accounts that includes proper separation of duties, role-based access, and least-privilege access; and
- f. Authorization of execution of privileged commands and access to security-relevant information only for operational needs.

The Access Control (AC) family of the SCP contains further details regarding the Access Control requirements.

#### **28.04. EC Data must remain in Canada**

The Contractor must restrict the location of information processing, information/data, and information system services to Canada (see SCP control SA-9(5)).

#### **28.05. Disclosure**

The information system must not release information outside of the established system boundary or to any 3rd party unless EC security safeguards and procedures are used to validate the appropriateness of the information designated for release (see SCP control AC-3(9)).

#### **28.06. Encryption**

The solution must protect all data at rest and in transit with encryption (see SCP control SC-13). The Contractor must ensure that any cryptography used to implement safeguards or as part of authentication mechanism (e.g., VPN solutions, TLS, software modules, Public Key Infrastructure (PKI), and authentication tokens where applicable) is configured for use with CSE approved cryptographic algorithms and cryptographic key sizes and crypto periods. This includes, but is not limited to:

- a. Cryptographic algorithms, cryptographic key sizes and crypto periods that have been approved by CSE and validated by the Cryptographic Algorithm Validation Program (CAVP) and are specified in ITSP.40.111 or in a subsequent version;

- b. Implemented in a Cryptographic Module, validated by the Cryptographic Module Validation Program (CMVP) to at least FIPS (Federal Information Processing Standard) 140-2 validation at Level 1; and
- c. Operate in FIPS Approved Mode of Operation.

#### **28.07. Data Leakage**

The Contractor's solution must implement controls to ensure appropriate isolation of resources such that EC data is not co-mingled with other tenant data without compensating controls, while in use, storage or transit, and throughout all aspects of the service's functionality and system administration. This includes implementing access controls and enforcing appropriate logical and physical segregation to support:

- a. The separation between the Contractor's internal administration from resources used by EC; and
- b. The separation of customer resources in multi-tenant environments in order to prevent one malicious or compromised consumer from affecting the service or data of another.

#### **28.08. Least Functionality**

The Contractor must configure the information system to provide only essential capabilities (see SCP controls CM-7 (A, B, 1, 3 and 5)). Where feasible the Contractor must limit component functionality to a single function per device and should disable unused or unnecessary physical and logical ports/protocols (such as USB, FTP, IPv6, HTTP).

#### **28.09. Incident Response**

The Contractor must work with the EC IT Security Coordinator and the EC Departmental Security Officer (DSO) on Security Incident containment, eradication and recovery in accordance with the Contractor and EC Incident Response processes. This includes, but is not limited to, the ability for EC to track the status of reported information security events, to request and receive discrete access and information associated with EC Data (user data, system/security event logs, network or host packet captures, logs from security components such as IDS/IPS/Firewalls, etc.) in an unencrypted fashion for the purposes of conducting investigations and the ability for EC to track the status of a reported information security event. The Contractor must alert and notify the EC IT Security

Coordinator (via phone and email) of detected suspicious events or unusual activities with security implications. The Incident Response (IR) family of the SCP contains further details regarding the Contractor's IR role and responsibilities.

#### **28.10. Audit**

The Contractor must work with EC for the development and implementation of audit functions, analysis and reporting. The Contractor's solution and service must facilitate audit functions including, but not limited to the following:

- a. Long term (10 years) retention audit information;
- b. Long term (10 year) EC Access to audit information without Contractor assistance;
- c. Protection of audit information and audit tools from unauthorized access, modification or deletion;
- d. Sufficient audit storage capacity to ensure audit storage capacity is not exceeded which could result in the loss or reduction of auditing capability;
- e. The solution alerts Contractor personnel of audit failures including taking automatic actions predetermined by EC and alerting key stakeholders when audit capacity reaches 75%;
- f. The Contractor notifies EC of any audit failures; and
- g. The solution must have the ability to forward events and logs to an EC (or any 3<sup>rd</sup> party contracted by EC) managed centralized audit log system using standardized reporting interfaces, protocols and data formats (e.g. Common Event Format (CEF), syslog, or other common log formats, APIs that support log data remote retrieval (e.g. via a database interface using SQL)).

The Audit and Accountability (AU) family of the SCP contains further details regarding audit requirements.

#### **28.11. Security Control Profile (SCP)**

The SCP defines the security controls required of the Contractor and Contractor's E-Poll Solution. The Contractor must provide a holistic approach to security for the E-Poll Solution and service throughout the Term of the Contract. To ensure that adequate security controls are in place, EC has developed a baseline SCP based upon the controls and methodologies from the Communications Security Establishment (CSE) guidance document: ITSG-33, IT Security Risk Management: A Lifecycle Approach.

### **28.11.01 Evidence**

As part of EC's SA&A process the Contractor must provide an explanation of how their organization and/or E-Poll Solution meet the security control. Detailed evidence of compliance to each control will be required during the SA&A program and the suitability of the evidence will be assessed by EC's IT Security Coordinator.

The following are required as a component of the Contractor's DDS, SRTM, and 3rd Party SA&A Compliance Specialist's Report on the SA&A compliance of the solution:

- a. If a control or line item is **Not Applicable** (NA) to the Contractor's E-Poll Solution (see *Applicability* above) the Contractor must **NOT** remove the line item and must provide a justification for the NA status.
- b. If the control or line item is applicable to the Contractor's E-Poll Solution but is **NA** to a partner/sub-contractor, the Contractor must provide a justification for the NA status in relation to the partner/sub-contractor.
- c. The Contractor must indicate if a partner/sub-contractor is responsible for the implementation of the control.
- d. The Contractor must provide an explanation of how their organization and E-Poll Solution meet the security control.

See Section 28.14 Acceptable Evidence for SCP Compliance for additional guidance.

### **28.12. ITSG-33 Control Families**

The SCP is comprised of security controls defined by CSE. The controls are catalogued in the CSE guidance document: ITSG-33, *IT Security Risk Management: A Lifecycle Approach*. Security controls within ITSG-33 are divided into 3 classes: Technical, Operational and Management. Within those 3 classes the controls are further subdivided into the following seventeen (17) families:

CLASS	Technical Security Controls	Operational Security Controls	Management Security Controls
<b>FAMILIES</b>	Access Control (AC) Audit and Accountability (AU) Identification and Authentication (IA) System and Communications Protection (SC)	Awareness and Training (AT) Configuration Management (CM) Contingency Planning (CP) Incident Response (IR) Maintenance (MA) Media Protection (MP) Physical and Environmental Protection (PE) Personnel Security (PS) System and Information Integrity (SI)	Security Assessment and Authorization (CA) Planning (PL) Risk Assessment (RA) System and Services Acquisition (SA)

**28.12.01 ITSG-33 Controls**

Each control family consists of multiple individual controls and each control has several components and may contain enhancements or supplemental guidance. In effect each control can be divided into multiple distinct controls. For the purposes of the SCP, each of these elements will be represented as a Line Item. This separation will facilitate the Security Assessment and Authorization (SA&A) process because it is then possible for one line item of a control to be required and another element not required. Furthermore, not only can the implementation and effectiveness of each line item be assessed separately, the responsibility for the implementation of the various elements might be the responsibility of different entities.

For example: *CP-7(A) Alternate Processing site* would be represented as a distinct line item from *CP-7(B) Alternate Processing Site*.

**28.13. SCP Control Table Definitions**

The following are definitions for the columns that comprise the entries on the SCP Control Table.

<b>Column</b>	<b>Definition</b>
<b>#:</b>	Control Table Reference/Line number
<b>Control Name:</b>	Official name of the control as presented in ITSG-33.
<b>ITSG-33:</b>	Official designation of the control in ITSG-33. Due to the subsections of individual controls being represented as line items (see ITSG-33 Controls above) multiple lines may have the same Control Name and similar control designations (examples of control designations are: AC-1, AT-4, or MA-5). Similar control designations are distinguished by subsequent alphabetical designations (such as AC-1(A), AC-1(B), etc.), numerical designations for control Enhancements (such as AC-2(1), AC-2(2) or AC-2(3), etc.) and SG or ESG for Supplemental Guidance and Enhancement Supplemental Guidance respectively (such as AT-2(1, SG). These naming conventions are as per ITSG-33. As ITSG-33 is a Canadian guideline based upon a National Institute of Standards and Technologies (NIST) standard, there is a numbering schema that denotes Canadian specific content: control designations with double letter designations (such as CP-9(AA)) or numerical control enhancements of one-hundred (such as AC-17(100)).
<b>Control Description:</b>	A high-level description of the security control. <u>Additional control details may be found in Annex 3A of ITSG-33.</u>
<b>Scope:</b>	This column denotes the estimated scope of the control in relation to the E-Poll Solution. Possible entries in this column are: ➤ <b>Field</b> , indicating the control is a capability required on E-Poll Solution components at Polling Places and at Local Offices;

Column	Definition
	<ul style="list-style-type: none"> <li>➤ <b>DC</b>, indicating the control is a capability required in the Contractor’s Data Center (DC) hosting the Contractor Central Server;</li> <li>➤ <b>DC/Field</b>, denoting applicability to both the DC and E-Poll Solution components at Polling Places and at Local Offices; and</li> <li>➤ <b>Org.</b> Controls that are marked “Org” are mainly organizational controls such as physical security or policy instruments which, while important, are <u>not capabilities of the information system itself</u>. Org can also denote controls such as system documentation, vulnerability scanning, user training, contracting/acquisition processes and procedures, and risk management strategies.</li> </ul>
<b>Responsibility:</b>	<p>This column is intended to indicate which entity is responsible for the development and implementation of the control. As the purpose of the SCP is the development and communication of security control requirements to the Contractor, the controls, and therefore the responsibilities for them, are targeted at the Contractor. If a control requires the participation by both Elections Canada (EC) and the Contractor, it will be indicated by an “X” in the “Shared” column. The most common cause for a “Shared” responsibility is if policies, procedure or system capabilities require definition by EC or EC and the Contractor working together before being implemented by the Contractor (See “Required Following EC Activities” below). Note that the Contractor must define the roles and responsibilities of any partner organizations or sub-contractors in the implementation of security controls (see Evidence below).</p>
<p><b>The last two columns, “Applicability” and “Evidence”, are to be completed by the Contractor and included with the entirety of the SCP as component parts of the deliverables: “Detailed Design Specification (DDS)”, “Security Requirements Traceability Matrix (SRTM)” and “Third Party Assessor’s Report on the SA&amp;A compliance of the solution”, and as required in this SOW.</b></p>	



Column	Definition
<b>App. (Y/NA):</b>	The Contractor must indicate if the control is applicable to their E-Poll Solution based upon the technologies to be employed. <b>If</b> a control is <b>Not Applicable (NA)</b> , the Contractor must provide justification for the control’s exclusion (see <i>Evidence</i> below).

**28.14. Acceptable Evidence for SCP Compliance**

This section defines what constitutes Acceptable Evidence of compliance to an SCP control as part of the EC SA&A program. Although the **3rd Party SA&A Compliance Specialist** will assess the Contractor’s compliance to the principles and controls in the SCP, EC is the final authority on the sufficiency of evidence supplied in support of compliance and the E-Poll Solution’s prime assessor.

**28.14.01 Policy, Standards and Guidelines**

In order to demonstrate compliance to SCP controls which require the Contractor to develop policy, standards or guidelines, the Contractor must:

- A. In the SCP Evidence column:
  - a. Provide the name of the policy instrument where the subject matter is covered.
  - b. Provide the section reference and page number where the specific subject matter is covered.
- B. Provide the policy instrument for EC review:
  - a. The policy instrument must address all the topics itemized in the security control definition.
  - b. The policy instrument must contain a level of detail/coverage consistent with Government of Canada policy instruments and industry best practices.

Example: the following is an example of acceptable evidence to an Access Control (AC) policy requirement for a fictitious Contractor solution “WeVote”.

#	Control Name	ITSG-33	Control Description	Acceptable Evidence
1.	Access Control Policy and Procedures	AC-1(A)	The Contractor develops, documents, and disseminates:  (a) An access control policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and  (b) Procedures to facilitate the implementation of the access control policy and associated access controls.	<ul style="list-style-type: none"> <li>➤ Name of Policy Instrument: <i>WeVote Security Policy</i>, Section 4 Access Control, pages 55-63</li> <li>➤ Access Control Sub-Sections 4.1 Scope, 4.2 Policy Update and Renewal Schedule, 4.3 Roles and Responsibilities, 4.4 AC Governance, 4.5 Inter-Organization Coordination, 4.6 AC implementation, 4.7 Account Management, 4.8 Least Privilege, 4.9 Remote Access, 4.10 Creation and Account Termination</li> <li>➤ <i>WeVote Security Policy</i> attached for EC review.</li> </ul>

**28.14.02 Certification and Clearance**

If compliance to an SCP control is established through a certification provided by a 3<sup>rd</sup> party, the Contractor must supply a copy of the Certificate and/or the Certification Report.

For Example: Designated Organizational Screening: PROT B from Public Services and Procurement Canada (PSPC)

If compliance to an SCP control is established through security clearances for relevant personnel, the Contractor must provide:

- A. List of all clearances for relevant personnel.
- B. Name of the originating organization for the security clearance

- C. File number (#), date of issuance, and date of expiry.

### **28.14.03 Functional Security Controls**

In order to demonstrate compliance to SCP controls which require the Contractor to develop and/or implement a technological security control the Contractor must:

- A. In the Evidence column of the SCP describe in detail how the Contractor's solution meets the control requirements
- B. Provide evidence of compliance for EC review such as system documentation, presentations, screenshots, reports and assessments.

Note that although the assessment of compliance to the SCP is a "paper-based" exercise, evidence of compliance can rely upon the outputs of technical testing and security assessments conducted in parallel (such as a Technical Vulnerability Assessment (VA) or Penetration Testing (PenTest)).

Examples of evidence include:

- Configuration Settings
- System Design Documents
- System Architecture or Topology diagrams
- Screenshot of the defined functions
- Access Control Lists
- Configuration Management Plan
- Security Training and Awareness Manual
- Risk Register
- Audit Report
- VA Report
- Business Impact Assessment (BIA)

**28.15. SCP Control Table**

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
1.	Access Control Policy and Procedures	AC-1(A)	The Contractor develops, documents, and disseminates: (a) An access control policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and (b) Procedures to facilitate the implementation of the access control policy and associated access controls.  All policies must contain a level of detail/coverage consistent with Government of Canada (GC) policy.	Org		X		
2.		AC-1(B)	The Contractor reviews and updates the current: (a) Access control policy annually and prior to any Electoral Event; and (b) Access control procedures annually and prior to any Electoral Event.  The review process is documented in the Access Control Policy and Procedures.	Org		X		
3.	Account Management	AC-2(A)	The Contractor and EC identify the types of information system accounts to support E-Poll Solution functions in the Contractor's DC.	Org	X			
4.		AC-2(B)	The Contractor assigns account managers with responsibility for the information system accounts.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
5.		AC-2(C)	The Contractor and EC establish conditions for group and role membership.	Org	X			
6.		AC-2(D)	The Contractor and EC specify authorized users of the information system, group and role membership, and access authorizations (i.e. privileges) and other attributes (as required) for each account.	Org	X			
7.		AC-2(E)	The Contractor requires approvals from the EC Contract Technical Authority for requests to create information system accounts. For EC HQ and Returning Officer (RO) accounts, approval must come from the EC Assistant Director of Voting Services. The approval process must be documented in the AC policy and procedures.	Org	X			
8.		AC-2(F)	The Contractor creates, enables, modifies, disables, and removes information system accounts in accordance with EC defined procedures or conditions.	DC	X			
9.		AC-2(G)	The Contractor monitors use of information system accounts. See CA-7 ( <i>Continuous Monitoring</i> ) for details on establishing a monitoring program and metrics.	DC		X		
10.		AC-2(H)	The Contractor and EC notify account managers: (a) When accounts are no longer required; (b) When users are terminated or transferred; and (c) When the individual information system usage or need-to-know changes.	Org	X			

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
			The notification process must be documented in the Contractor and EC AC policies and procedures.					
11.		AC-2(I)	The Contractor and EC authorize access to the information system based on: (a) A valid access authorization (b) Intended system usage; and (c) Other attributes as required by EC or associated business functions. Conditions for access must be documented in the Contractor and EC AC policies and procedures.	Org	X			
12.		AC-2(J)	The Contractor reviews accounts for compliance with account management requirements annually and at random intervals.  The review process must be defined in the AC policy and procedures.	Org		X		
13.		AC-2(1)	The organization employs <b>automated mechanisms</b> to support the management of DC information system accounts. Examples of automated mechanism can include email or text messages to notify account managers of personnel terminations or transfers or telephonic notification to report atypical system account usage.	DC		X		
14.		AC-2(2)	The information system removes/disables temporary and emergency accounts after an EC defined time period for each type of account.	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
			For example: All EO accounts would be required only for the duration of polling and would need to be automatically terminated at the end of the Electoral Event Returning Office accounts, such as for the Returning Officer (RO) or an Automation Coordinator, would require a longer period of activation (1-2 months post-event) but may need to transition to read-only once polls are closed.					
15.		AC-2(3)	The information system automatically disables inactive accounts after an EC defined time period based upon the user roles.  See AC-2(2)	DC/Field		X		
16.		AC-2(4)	The information system automatically audits account creation, modification, enabling, disabling, and removal actions, and notifies predetermined Contractor personnel.	DC		X		
17.		AC-2(5)	The Contractor and EC require that users lock E-Poll Devices when leaving the device (such as to take a break) or upon leaving the Polling Place for any reason. This policy must be defined in the system use guidelines and user training materials.	Org	X			
18.		AC-2(7)	(a) The Contractor establishes and administers privileged DC user accounts in accordance with a role-based access scheme that organizes allowed	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
			information system access and privileges into <b>roles</b> ; (b) The Contractor monitors privileged DC role assignments; and (c) The Contractor terminates privileged DC accounts when privileged role assignments are no longer appropriate.					
19.	Access Enforcement	AC-3(A, SG)	The information system enforces approved authorizations for logical access to information <u>and</u> system resources in accordance with applicable access control policies.  Supplemental Guidance: Access control policies and access enforcement mechanisms (such as access control lists or cryptography) control access between active entities or subjects (i.e. users or processes acting on behalf of users) and passive entities or objects (devices, files, records, etc.) in the information system. In addition to enforcing authorized access at the information level access enforcement mechanisms can also be employed at the application and service level to provide increased information security.	DC/Field		X		
20.		AC-3(2)	The information system enforces dual authorization for privileged commands and/or other actions to be defined by EC.	Field	X			
21.		AC-3(7)	The information system enforces a role-based access control policy over defined subjects and objects and	DC	X			



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
			controls access based upon Contractor and EC defined roles and users authorized to assume such roles.					
22.		AC-3 (9)	The information system does not release information outside of the established system boundary unless: (b) EC security safeguards and procedures are used to validate the appropriateness of the information designated for release.	DC/Field		X		
23.		AC-3(10)	<b>If</b> the information system employs automated access control mechanisms the system must have a manual override capacity. Conditions for use of a manual override must be clearly defined and the use of the manual override of automated system features must be auditable.	DC/Field		X		
24.	Information Flow Enforcement	AC-4(A)	The information system enforces approved authorizations for controlling the flow of information within the system and between interconnected systems based on EC defined information flow control policies.	DC/Field	X			
25.		AC-4(SG)	The Contractor should employ specific architectural solutions when required to enforce specific security policies. Enforcement includes, for example: (i) prohibiting information transfers between interconnected systems (i.e. allowing access only); (ii) employing hardware mechanisms to enforce one-way information flows; and (iii) implementing trustworthy re-grading mechanisms to reassign security attributes	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
			and security labels.					
26.	Separation of Duties	AC-5(A)	The Contractor: (b) Documents separation of duties of individuals; and (c) Defines information system access authorizations to support separation of duties.	Org		X		
27.		AC-5(SG)	EC and the Contractor must define the roles and responsibilities of users in order to prevent abuse of authorized privileges and reduce the risk of malevolent activity without collusion. Separation of duties includes, for example: (i) dividing mission functions and information support functions among different individuals and/or roles; (ii) conducting information support functions with different individuals (e.g. system management, programming, configuration management, quality assurance and testing, and network security); and (iii) ensuring security personnel administering access control functions do not also administer audit functions.	Org	X			
28.	Least Privilege	AC-6(A)	The Contractor employs the principle of least privilege, allowing only authorized accesses for users (or processes acting on behalf of users) which are necessary to accomplish assigned tasks in accordance with organizational missions and business functions.	DC/Field		X		
29.		AC-6(1)	The organization explicitly authorizes access to security functions (deployed in hardware, software,	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
			and firmware) and security-relevant information].					
30.		AC-6(2)	The Contractor requires that users of information system accounts, or roles, with access to security functions or security-relevant information, use non-privileged accounts or roles, when accessing non-security functions.	Org		X		
31.		AC-6(5)	The Contractor restricts privileged accounts on the information system to defined personnel or roles.	Org		X		
32.		AC-6(9)	The information system audits the execution of privileged functions.	DC/Field		X		
33.		AC-6(10)	The information system prevents non-privileged users from executing privileged functions including disabling, circumventing, or altering implemented security safeguards/countermeasures.	DC/Field		X		
34.	Unsuccessful Login Attempts	AC-7(A)	<p>The information system enforces a limit to the number of logon attempts by a user during a specified time frame. The maximum logon attempts and the timeframe are different for the DC and the E-Poll Devices.</p> <p>DC: For the Contractor’s central solution, a maximum of 3 unsuccessful logon attempts within 5 minutes should be enforced.</p> <p>Service Points: In the field, at Polling Places, the maximum unsuccessful logon attempts are 5 within 15</p>	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
			minutes.					
35.		AC-7(B)	The information system automatically locks DC accounts until released by an administrator when the maximum number of unsuccessful attempts is reached.  For service points, once the maximum unsuccessful logon attempts is reached, the system locks the account until released by an administrator <u>or</u> 15 minutes has passed.	DC/Field		X		
36.	System Use Notification	AC-8(A)	The information system displays to users an EC defined system use notification message or banner before granting access to the system that provides privacy and security notices in accordance with the <i>TBS Policy on the Use of Electronic Networks</i> .	DC/Field		X		
37.		AC-8(B)	The information system retains the notification message or banner on the screen until users acknowledge the usage conditions and take explicit actions to log on to or further access the information system.	DC/Field		X		
38.	Previous Logon (Access) Notification	AC-9(A)	The information system notifies the user, upon successful logon (access) to the system, of the date and time of the last logon (access).	DC		X		
39.		AC-9(1)	The information system notifies the user, upon successful logon/access, of the number of	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
			unsuccessful logon/access attempts since the last successful logon/access.					
40.		AC-9(3)	The information system notifies the user of changes to the characteristics/parameters of the user's account during the last 24 hours.	DC		X		
41.	Session Lock	AC-11(A)	The information system prevents further access to the system by initiating a session lock after a defined time period of inactivity or upon receiving a request from a user.  Contractor Central Server: 15 minutes E-Poll Device: 5 minutes Local Office E-Poll Solution components, if applicable: 5 minutes	DC/Field		X		
42.		AC-11(B)	The information system retains the session lock until the user re-establishes access using established identification and authentication procedures.	DC/Field		X		
43.		AC-11(1)	The information system conceals, via the session lock, information previously visible on the display with a publicly viewable image.	DC/Field		X		
44.	Session Termination	AC-12(1)	(b) The information system displays an explicit logout message to users indicating the reliable termination of authenticated communications sessions.	Field		X		
45.	Permitted Action Without Identification	AC-14(A)	The Contractor identifies defined user actions ("none" is an acceptable definition) that can be performed on the information system without identification or	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
	and Authentication		authentication consistent with organizational missions/business functions.					
46.		AC-14(B)	The organization documents and provides supporting rationale, in the security plan for the information system, user actions not requiring identification or authentication (NA if no actions can be taken without identification or authentication).	Org		X		
47.	Security Attributes	AC-16(A)	The Contractor provides the means to associate EC defined types of security attributes (such as security labeling or security marking) having EC defined values with information in storage, in process, and/or in transmission.	DC/Field		X		
48.		AC-16(B)	The Contractor ensures that the security attribute associations are made and retained with the information.	DC/Field		X		
49.		AC-16(C)	The Contractor and EC establish the permitted security attributes for the solution.	Org	X			
50.		AC-16(D)	The Contractor and EC determine the permitted values or ranges for each of the established security attributes.	Org	X			
51.		AC-16(2)	The information system provides authorized individuals (or processes acting on behalf of individuals) the capability to define or change the value of associated security attributes.	DC/Field		X		
52.		AC-16(4,	The information system supports the association of EC	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
		SG)	<p>defined security attributes with EC defined subjects and objects by authorized individuals (or processes acting on behalf of individuals).</p> <p>Supplemental Guidance: The support provided by information systems can vary to include: (i) prompting users to select specific security attributes to be associated with specific information objects; (ii) employing automated mechanisms for categorizing information with appropriate attributes based on defined policies; or (iii) ensuring that the combination of selected security attributes selected is valid. Organizations consider the creation, deletion, or modification of security attributes when defining auditable events.</p>					
53.		AC-16(5)	The information system displays security attributes in human-readable form (marking) on each object that the system transmits to output devices to identify EC defined special dissemination, handling, or distribution instructions using GC human-readable, standard naming conventions.	DC/Field		X		
54.	Remote Access	AC-17(A)	EC and the Contractor establish and document usage restrictions, configuration/connection requirements, and implementation guidance for each type of remote access allowed.	Org	X			
55.		AC-17(B)	The Contractor authorizes remote access to the	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
			information system prior to allowing such connections.					
56.		AC-17(AA)	The Contractor ensures that all Contractor personnel working off-site safeguard information as per the minimum requirements in accordance with the TBS <i>Operational Security Standard on Physical Security</i> .	Org		X		
57.		AC-17(1)	Automated monitoring and control of remote access sessions allows organizations to detect cyber-attacks and also ensure ongoing compliance with remote access policies by auditing connection activities of remote users on a variety of information system components (e.g., servers, workstations, notebook computers, smart phones, and tablets).  The information system monitors and controls remote access methods.	DC		X		
58.		AC-17(2)	The information system implements cryptographic mechanisms to protect the confidentiality and integrity of remote access sessions. The cryptography must be compliant with the requirements of SC-13.	DC/Field		X		
59.		AC-17(3, SG)	The information system routes all remote accesses through a restricted number of managed network access control points.  Supplemental Guidance: Limiting the number of access control points for remote accesses reduces the	DC		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
			attack surface. The Contractor should consider the <i>Trusted Internet Connections (TIC) initiative</i> requirements for external network connections.					
60.		AC-17(4)	(a) The Contractor authorizes the execution of privileged commands and access to security-relevant information via remote access only <u>for defined needs</u> ; and (b) The organization documents the rationale for such access in the security plan for the information system.	DC/Field		X		
61.		AC-17(6)	The Contractor ensures that users protect information about remote access mechanisms from unauthorized use and disclosure.	Org	X			
62.		AC-17(100)	Remote access to privileged accounts is performed on dedicated management consoles governed entirely by the system's security policies and used exclusively for this purpose (e.g. Internet access not allowed).	DC		X		
63.	Wireless Access	AC-18(A)	The Contractor and EC establish usage restrictions, configuration/connection requirements, and implementation guidance for wireless access.	DC/Field	X			
64.		AC-18(B)	The Contractor authorizes wireless access to the information system prior to allowing such connections.	DC/Field		X		
65.		AC-18(1)	The information system protects wireless access to the system using authentication of both users and devices, and employs encryption.	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
66.		AC-18(3)	The Contractor disables, when not intended for use, wireless networking capabilities internally embedded within information system components prior to issuance and deployment.	DC/Field		X		
67.		AC-18(4)	The Contractor identifies and explicitly authorizes users allowed to independently configure wireless networking capabilities.	Org		X		
68.	Access Control for Mobile Devices	AC-19(A)	The Contractor and EC establish usage restrictions, configuration requirements, connection requirements, and implementation guidance for organization-controlled mobile devices.	DC/Field	X			
69.		AC-19(B)	The Contractor authorizes the connection of mobile devices to organizational information systems.	DC/Field		X		
70.	Use of External Information Systems	AC-20(A)	The Contractor and EC establishes terms and conditions, consistent with any trust relationships established with other organizations owning, operating, and/or maintaining external information systems, allowing authorized individuals <b>to access</b> the information system from external information systems.	Org	X			
71.		AC-20(B)	The Contractor and EC establish terms and conditions, consistent with any trust relationships established with other organizations owning, operating, and/or maintaining external information systems, allowing authorized individuals <b>to process, store, or transmit</b> organization-controlled information using external	Org	X			

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
			information systems.					
72.		AC-20(1)	The Contractor permits authorized individuals to use an external information system to access the information system or to process, store, or transmit organization-controlled information <u>only when</u> the organization: (a) Verifies the implementation of required security controls on the external system as specified in the Contractor’s information security policy and security plan; or (b) Retains approved information system connection or processing agreements with the organizational entity hosting the external information system.	Org		X		
73.		AC-20(2, SG)	The Contractor restricts the use of organization-controlled mobile devices by authorized individuals on external information systems.  Supplemental Guidance: Limits on the use of organization-controlled mobile devices in external information systems include, for example, complete prohibition of the use of such devices or restrictions on how the devices may be used and under what conditions the devices may be used.	Org		X		
74.		AC-20(3)	The Contractor restricts the use of non-Contractor owned information systems, system components, or	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>ACCESS CONTROL (AC)</b>								
			devices (such as personal phones or computers) to process or store organizational information.					
75.		AC-20(4, SG)	<p>The organization prohibits the use of Contractor and EC defined network accessible storage devices in external information systems.</p> <p>Supplemental Guidance: Network accessible storage devices in external information systems include, for example, online storage devices in public, hybrid, or community cloud-based systems.</p>	Org	X			
76.	Data Mining Protection	AC-23(A)	<p>The Contractor employs data mining prevention and detection techniques to adequately detect and protect against data mining</p> <p>Data mining prevention and detection techniques include, for example: (i) limiting the types of responses provided to database queries; (ii) limiting the number/frequency of database queries to increase the work factor needed to determine the contents of such databases; and (iii) notifying organizational personnel when atypical database queries or accesses occur.</p>	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>AWARENESS and TRAINING (AT)</b>								
77.	Security Awareness and Training (AT) Policy and Procedures	AT-1(A)	<p>The Contractor develops, documents, and disseminates:</p> <p>(a) A security awareness and training policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and</p> <p>(b) Procedures to facilitate the implementation of the security awareness and training policy and associated security awareness and training controls.</p> <p>All policies must contain a level of detail/coverage consistent with EC and GC policy.</p>	Org		X		
78.		AT-1(B)	<p>The Contractor reviews and updates the current:</p> <p>(a) Security awareness and training policy annually and prior to any Electoral Event; and</p> <p>(b) Security awareness and training procedures annually and prior to any Electoral Event.</p> <p>The review process is documented in the Awareness and Training Policy and Procedures.</p>	Org		X		
79.	Security	AT-2(A)	The Contractor provides basic security awareness training to information system users (including	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>AWARENESS and TRAINING (AT)</b>								
	Awareness		managers, senior executives, and sub-contractors):  (a) As part of initial training for new users;  (b) When required by information system changes; and  (c) Annually thereafter.					
80.		AT-2(1,SG)	The Contractor includes practical exercises in security awareness training to its personnel that simulate actual cyber-attacks.  Supplemental Guidance: Practical exercises may include, for example, no-notice social engineering attempts to collect information, gain unauthorized access, or simulate the adverse impact of opening malicious email attachments or invoking, via spear phishing attacks, malicious web links.	Org		X		
81.		AT-2(2, SG)	The Contractor includes security awareness training to its personnel on recognizing and reporting potential indicators of insider threat.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>AWARENESS and TRAINING (AT)</b>								
			Supplemental Guidance: Potential indicators and possible precursors of insider threat can include behaviours such as inordinate, long-term job dissatisfaction, attempts to gain access to information not required for job performance, unexplained access to financial resources, bullying or sexual harassment of fellow employees, workplace violence, and other serious violations of organizational policies, procedures, directives, rules, or practices. Security awareness training includes how to communicate employee and management concerns regarding potential indicators of insider threat through appropriate organizational channels in accordance with established organizational policies and procedures.					
82.	Role Based Security Training	AT-3(A)	<p>The Contractor provides role-based security training to personnel with assigned security roles and responsibilities:</p> <ul style="list-style-type: none"> <li>(a) Before authorizing access to the information system or performing assigned duties;</li> <li>(b) When required by information system changes; and</li> <li>(c) Annually thereafter.</li> </ul>	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>AWARENESS and TRAINING (AT)</b>								
83.		AT-3(4)	The Contractor provides training to its personnel on indicators of malicious code to recognize suspicious communications and anomalous behaviour in organizational information systems.	Org		X		
84.	Security Training Records	AT-4(A)	The Contractor documents and monitors individual information system security training activities including basic security awareness training and specific information system security training; and	Org		X		
85.		AT-4(B)	The Contractor retains individual training records for the lesser of 10 years or the Term of the Contract. At the end of the Term of the Contract, the Contractor must return all records in the Contractor's possession to EC.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>AUDIT and ACCOUNTABILITY (AU)</b>								
86.	Audit and Accountability (AU) Policy and Procedures	AU-1(A)	The Contractor develops, documents, and disseminates:  (a) An audit and accountability policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among	Org		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>AUDIT and ACCOUNTABILITY (AU)</b>								
			organizational entities, and compliance; and  (b) Procedures to facilitate the implementation of the audit and accountability policy and associated audit and accountability controls.  All policies must contain a level of detail/coverage consistent with EC and GC policy.					
87.		AU-1(B)	The Contractor reviews and updates the current:  (a) Audit and accountability policy annually and prior to any Electoral Event; and  (b) Audit and accountability procedures annually and prior to any Electoral Event.  The review process is documented in the Audit and Accountability Policy and Procedures.	Org		X		
88.	Auditable Events	AU-2(A, SG)	The Contractor and EC determine which events the information system must be capable of auditing.  Supplemental Guidance: An event is any observable occurrence in the information system. The Contractor and EC must work together to determine what	Org	X			

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>AUDIT and ACCOUNTABILITY (AU)</b>								
			constitutes an event for E-Poll Solution components. Events can include technical and business events, for example: password changes, failed logons, administrative privilege usage, or 3 <sup>rd</sup> party credential usage. EC and the Contractor also need to define when an auditable event needs to be audited. For example: some audit events might need to be audited only during a General Election (GE).					
89.		AU-2(B)	The Contractor coordinates the security audit function with other entities (such as partners and EC) requiring audit-related information to enhance mutual support and to help guide the selection of auditable events.	Org	X			
90.		AU-2(C)	The Contractor and EC provide a rationale for why the auditable events are deemed to be adequate to support after-the-fact investigations of security incidents.	Org	X			
91.		AU-2(D)	The Contractor and EC determine the frequency of (or situation requiring) auditing for each identified event (see AU-2(A)).	Org	X			
92.		AU-2(3)	The Contractor and EC review and update the audited events annually.	Org	X			
93.	Content of	AU-3(A)	The information system generates audit records	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>AUDIT and ACCOUNTABILITY (AU)</b>								
	Audit Records		containing information that establishes what type of event occurred, when the event occurred, where the event occurred, the source of the event, the outcome of the event, and the identity of any individuals or subjects associated with the event.					
94.	Audit storage Capacity	AU-4(A,SG)	<p>The Contractor allocates audit record storage capacity in accordance with defined audit record storage requirements.</p> <p>Supplemental Guidance: the Contractor must consider the types of auditing to be performed and the audit processing requirements when allocating audit storage capacity. Allocating sufficient audit storage capacity reduces the likelihood or such capacity being exceeded and resulting in the potential loss or reduction of auditing capability.</p>	DC/Field		X		
95.		AU-4(1)	The information system off-loads audit records onto a different system or media than the system being audited. Incremental back-ups of the audit logs need to be performed daily with full back-ups of audit logs performed at a minimum weekly.	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>AUDIT and ACCOUNTABILITY (AU)</b>								
96.	Response to Audit Processing Failures	AU-5(A)	The information system alerts Contractor personnel in the event of an audit processing failure.	DC/Field		X		
97.		AU-5(B)	The information system takes additional actions in the case of an audit processing failure (e.g., shut down information system, overwrite oldest audit records, stop generating audit records, etc.). These additional actions need to be defined by the Contractor and EC.	DC/Field	X			
98.		AU-5(1)	The information system provides a warning to Contractor personnel when allocated audit record storage volume reaches 75% of repository maximum audit record storage capacity.	DC/Field		X		
99.	Audit Review, Analysis and Reporting	AU-6(A)	The Contractor reviews and analyzes information system audit records for indications of defined inappropriate or unusual activity. Logs must be reviewed immediately following an event and prior to the delivery of the final report by the Chief Electoral Officer (CEO).	Org		X		
100.		AU-6(B)	The organization reports findings to the EC IT Security Coordinator.	Org		X		
101.		AU-6(1)	The Contractor employs automated mechanisms to integrate audit review, analysis, and reporting processes	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>AUDIT and ACCOUNTABILITY (AU)</b>								
			to support organizational processes for investigation and response to suspicious activities.					
102.		AU-6(3)	The organization analyzes and correlates audit records across different repositories to gain <b>organization-wide</b> situational awareness.	DC/Field		X		
103.		AU-6(4)	The information system provides the capability to centrally review and analyze audit records from multiple components within the system.	DC/Field		X		
104.	Audit Reduction and Report Generation	AU-7(A)	The information system provides an audit reduction and report generation capability that supports <b>on-demand</b> audit review, analysis, and reporting requirements and <b>after-the-fact</b> investigations of security incidents.	DC		X		
105.		AU-7(B)	The information system provides an audit reduction and report generation capability that does <b>not alter</b> the original content or time ordering of audit records.	DC		X		
106.		AU-7(1)	The information system provides the capability to process audit records for events of interest based on EC defined audit fields within audit records.	DC	X			
107.		AU-7(2)	The information system provides the capability to sort and search audit records for events of interest based on the content of EC defined audit Fields within audit	DC	X			

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>AUDIT and ACCOUNTABILITY (AU)</b>								
			records.					
108.	Time Stamps	AU-8(A)	The information system uses internal system clocks to generate time stamps for audit records.	DC/Field		X		
109.		AU-8(B)	The information system records time stamps for audit records that can be mapped to Coordinated Universal Time (UTC) and meets EC defined granularity of time measurement (such as hours, minutes, and seconds).	DC/Field		X		
110.		AU-8(1)	(a) The information system compares the internal information system clocks every 4 hours (when possible for E-Poll Devices) with National Research Council of Canada (NRC) Network Time Protocol (NTP); and  (b) The information system synchronizes the internal system clocks to the authoritative time source when the time difference is greater than 1 millisecond (10 <sup>-3</sup> seconds).	DC/Field		X		
111.	Protection of Audit Information	AU-9(A)	The information system protects audit information and audit tools from unauthorized access, modification, and deletion.	DC/Field		X		
112.		AU-9(2)	The information system backs up audit records onto a <b>physically different system</b> or <b>system component</b> than	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>AUDIT and ACCOUNTABILITY (AU)</b>								
			the system or component being audited. Due to the fact that some E-Poll Devices will operate in an off-line mode the frequency of back-ups of audit data will have to conform to the operational standards and back-ups as determined for all EC data from E-Poll Devices.					
113.		AU-9(4)	The organization authorizes access to <b>management of audit functionality</b> to only a defined subset of privileged users.	Org		X		
114.		AU-9(6)	The organization <b>authorizes read-only access to audit information</b> to a defined subset of privileged users.	Org		X		
115.	Audit Record Retention	AU-11(A)	The organization retains audit records for the lesser of 10 years or the Term of the Contract to provide support for after-the-fact investigations of security incidents and to meet regulatory and organizational information retention requirements. At the end of the Term of the Contract, the Contractor must return all audit records in the Contractor's possession to EC.	Org		X		
116.		AU-11(1)	The Contractor must ensure that long-term audit records generated by the information system can be retrieved by EC without assistance from the Contractor. The Contractor must provide EC with the necessary specifications to ensure that EC can provision the necessary equipment and expertise to retrieve, access,	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>AUDIT and ACCOUNTABILITY (AU)</b>								
			and interpret the audit records in their current format.					
117.	Audit Generation	AU-12(A)	The information system provides audit record generation capability for the auditable events defined in AU-2(A).	DC/Field		X		
118.		AU-12(B)	The information system allows Contractor personnel with audit roles to select which auditable events are to be audited by specific components of the information system.	DC/Field		X		
119.		AU-12(C)	The information system generates audit records for the events defined in AU-2(D) with the content defined in AU-3(A).	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SECURITY ASSESSMENT and AUTHORIZATION (CA)</b>								
120.	Security Assessment and Authorization (CA) Policies	CA-1(A)	The Contractor develops, documents, and disseminates:  (a) A security assessment and authorization policy that addresses purpose, scope, roles,	Org		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SECURITY ASSESSMENT and AUTHORIZATION (CA)</b>								
	and Procedures		responsibilities, management commitment, coordination among organizational entities, and compliance; and  (b) Procedures to facilitate the implementation of the security assessment and authorization policy and associated security assessment and authorization controls.  All policies must contain a level of detail/coverage consistent with GC guidelines (ITSG-33).					
121.		CA-1(B)	The Contractor reviews and updates the current:  (a) Security assessment and authorization policy annually and prior to any Electoral Event; and  (b) Security assessment and authorization procedures annually and prior to any Electoral Event.  The review process is documented in the Security Assessment and Authorization Policy and Procedures.	Org		X		
122.	Security	CA-2(A)	(A) The Contractor develops a security assessment plan	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SECURITY ASSESSMENT and AUTHORIZATION (CA)</b>								
	Assessments		<p>that describes the scope of the assessment including:</p> <ul style="list-style-type: none"> <li>(a) Security controls and control enhancements under assessment;</li> <li>(b) Assessment procedures to be used to determine security control effectiveness; and</li> <li>(c) Assessment environment, assessment team, and assessment roles and responsibilities.</li> </ul> <p>The SA Plan must be approved by the EC IT Security Coordinator.</p>					
123.		CA-2(B)	<p>The Contractor assesses the security controls in the information system and its environment of operation annually and prior to any Electoral Event to determine the extent to which the controls are implemented correctly, operating as intended, and producing the desired outcome with respect to meeting established security requirements.</p> <p>The Contractor must facilitate 3<sup>rd</sup> party security control assessments by independent and impartial assessors</p>	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SECURITY ASSESSMENT and AUTHORIZATION (CA)</b>								
			selected by EC.					
124.		CA-2(C)	The Contractor produces a security assessment report that documents the results of internal security control assessments.	Org		X		
125.		CA-2(D)	The Contractor provides the results of internal security control assessment to EC.  EC will share the results of any 3 <sup>rd</sup> party security control assessments with the Contractor.	Org		X		
126.		CA-2(2)	The Contractor includes, as part of security control assessments, annually and prior to any Electoral Event: vulnerability scanning; malicious user testing; and performance/ load testing. The results of the testing and any follow-up activities must be shared with the EC IT Security Coordinator and EC must have the option to participate in the testing process.	Org		X		
127.	Information System Connections	CA-3(A)	The Contractor authorizes connections from the information system to other information systems through the use of Interconnection Security Agreements.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SECURITY ASSESSMENT and AUTHORIZATION (CA)</b>								
128.		CA-3(B)	The Contractor documents, for each interconnection, the interface characteristics, security requirements, and the nature of the information communicated.	Org		X		
129.		CA-3(C)	The Contractor reviews and updates Interconnection Security Agreements annually and prior to any Electoral Event.	Org		X		
130.	Plan of Action and Milestones	CA-5(A)	The Contractor develops a plan of action and milestones for the information system to document the Contractor’s planned remedial actions to correct weaknesses or deficiencies noted during the assessment of the security controls and to reduce or eliminate known vulnerabilities in the system.	Org		X		
131.		CA-5(B)	The Contractor updates existing plan of action and milestones annually and prior to any Electoral Event based on the findings from security controls assessments, security impact analyses, and continuous monitoring activities.	Org		X		
132.	Security Authorization	CA-6(A)	The Contractor and EC assign senior-level executives or managers as the authorizing officials for the information system.	Org	X			

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SECURITY ASSESSMENT and AUTHORIZATION (CA)</b>								
133.		CA-6(B)	The Contractor and EC ensure that the authorizing officials authorize the information system for processing <u>before</u> commencing operations.	Org	X			
134.		CA-6(C)	The Contractor and EC update the security authorization annually and prior to any Electoral Event.	Org	X			
135.	Continuous Monitoring	CA-7(A)	The Contractor develops a continuous monitoring strategy and implements a continuous monitoring program that includes establishment of defined <b>metrics</b> to be monitored.	Org		X		
136.		CA-7(B)	The Contractor develops a continuous monitoring strategy and implements a continuous monitoring program that includes establishment of defined <b>frequencies</b> for monitoring and for assessments supporting such monitoring.	Org		X		
137.		CA-7(C)	The Contractor develops a continuous monitoring strategy and implements a continuous monitoring program that includes ongoing <b>security control</b> assessments in accordance with the Contractor's organizational continuous monitoring strategy.	Org		X		
138.		CA-7(D)	The Contractor develops a continuous monitoring strategy and implements a continuous monitoring	Org	X			

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SECURITY ASSESSMENT and AUTHORIZATION (CA)</b>								
			program that includes ongoing <b>security status</b> monitoring of EC defined metrics in accordance with the organizational continuous monitoring strategy from CA-7(C).					
139.		CA-7(E)	The Contractor develops a continuous monitoring strategy and implements a continuous monitoring program that includes <b>correlation and analysis of security-related information</b> generated by assessments and monitoring.	Org		X		
140.		CA-7(F)	The Contractor develops a continuous monitoring strategy and implements a continuous monitoring program that includes <b>response actions</b> to address results of the analysis of security-related information.	Org		X		
141.		CA-7(G)	The Contractor develops a continuous monitoring strategy and implements a continuous monitoring program that includes <b>reporting</b> the security status the information system to EC annually and prior to any Electoral Event.	Org		X		
142.	Penetration Testing	CA-8(A)	The Contractor conducts penetration testing annually. Penetration testing is <u>not</u> to be performed immediately prior to any Electoral Event. The results of the testing	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SECURITY ASSESSMENT and AUTHORIZATION (CA)</b>								
			must be shared with the EC IT Security Coordinator and EC must have the option to participate in the testing process.					
143.		CA-8(1)	The Contractor employs an independent penetration agent or penetration team to perform penetration testing on the information system or system components.	Org		X		
144.	Internal System Connections	CA-9(A)	The Contractor authorizes internal connections of defined information system components or classes of components to the information system.	Org		X		
145.		CA-9(B)	The Contractor documents, for each internal connection, the interface characteristics, security requirements, and the nature of the information communicated.	Org		X		
146.		CA-9(1)	The information system performs security compliance checks on constituent system components prior to the establishment of the internal connection.	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONFIGURATION MANAGEMENT (CM)</b>								
147.	Configuration Management Policy and Procedures	CM-1(A)	The Contractor develops, documents, and disseminates:  (a) A configuration management policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and  (b) Procedures to facilitate the implementation of the configuration management policy and associated configuration management controls.  All policies must contain a level of detail/coverage consistent with GC policy.	Org		X		
148.		CM-1(B)	The Contractor reviews and updates the current:  (a) Configuration management policy annually and prior to any Electoral Event; and  (b) Configuration management procedures	Org		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONFIGURATION MANAGEMENT (CM)</b>								
			annually and prior to any Electoral Event.  The review process is documented in the Configuration Management Policy and Procedures.					
149.	Baseline Configuration	CM-2(A)	The Contractor develops, documents, and maintains under configuration control, a current baseline configuration of the information system.	DC/Field		X		
150.		CM-2(1)	The Contractor reviews and updates the baseline configuration of the information system:  (a) annually;  (b) prior to any Electoral Event; and  (c) As an integral part of information system component installations and upgrades.	DC/Field		X		
151.		CM-2(2)	The Contractor employs automated mechanisms to maintain an up-to-date, complete, accurate, and readily available baseline configuration of the information system.	DC/Field		X		
152.		CM-2(6)	The Contractor maintains a baseline configuration for information system development and maintains	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONFIGURATION MANAGEMENT (CM)</b>								
			test environments that are managed separately from the operational baseline configuration.					
153.	Configuration Change Control	CM-3(A)	The Contractor determines the types of changes to the information system that are configuration-controlled.	Org		X		
154.		CM-3(B)	The Contractor reviews proposed configuration-controlled changes to the information system and approves or disapproves such changes with explicit consideration for security impact analyses.	Org		X		
155.		CM-3(C)	The Contractor documents configuration change decisions associated with the information system.	Org		X		
156.		CM-3(D)	The Contractor implements only approved configuration-controlled changes to the information system.	DC/Field		X		
157.		CM-3(E)	The Contractor retains records of configuration-controlled changes to the information system for the lesser of 10 years or the Term of the Contract. At the end of the Term of the Contract, the Contractor must return all records in the Contractor's possession of configuration-controlled changes to the information system to EC.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONFIGURATION MANAGEMENT (CM)</b>								
158.		CM-3(F)	The Contractor audits and reviews activities associated with configuration-controlled changes to the information system.	DC/Field		X		
159.		CM-3(G)	The Contractor coordinates and provides oversight for configuration change control activities through a change management board that convenes weekly and prior to any Electoral Event.	Org		X		
160.		CM-3(2)	The Contractor tests, validates, and documents changes to the information system before implementing the changes on the operational system.	DC/Field		X		
161.		CM-3(3)	The Contractor employs automated mechanisms to implement changes to the current information system baseline and deploys the updated baseline across the installed base.	DC/Field		X		
162.		CM-3(4)	The Contractor's configuration change control board must include an information security representative.	Org		X		
163.		CM-3(6, SG)	The Contractor ensures that cryptographic mechanisms used to provide security safeguards	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONFIGURATION MANAGEMENT (CM)</b>								
			are under configuration management.  Supplemental Guidance: Regardless of the cryptographic means employed (such as PKI or shared secrets) the Contractor must ensure that there are processes and procedures in place to effectively manage the cryptographic means employed.					
164.	Security Impact Analysis	CM-4(A)	The Contractor analyzes changes to the information system to determine potential security impacts prior to change implementation.	DC/Field		X		
165.		CM-4(1)	The Contractor analyzes changes to the information system in a separate test environment before implementation in an operational environment, looking for security impacts due to flaws, weaknesses, incompatibility, or intentional malice.	DC/Field		X		
166.		CM-4(2)	The Contractor, after the information system is changed, checks the security functions to verify that the functions are implemented correctly, operating as intended, and producing the desired outcome with regard to meeting the security control requirements for the system.	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONFIGURATION MANAGEMENT (CM)</b>								
167.	Access Restrictions for Change	CM-5(A)	The Contractor defines, documents, approves, and enforces physical and logical access restrictions associated with changes to the information system.	DC/Field		X		
168.		CM-5(1)	The information system enforces access restrictions and supports auditing of the enforcement actions.	DC/Field		X		
169.		CM-5(2)	The Contractor reviews information system changes weekly to determine whether unauthorized changes have occurred.	DC/Field		X		
170.		CM-5(5)	(a) The Contractor limits privileges to change information system components and system-related information within a production or operational environment; and  (b) The Contractor reviews and re-evaluates privileges annually.	DC/Field		X		
171.		CM-5(6)	The Contractor limits privileges to change software resident within software libraries.	DC		X		
172.		CM-6(A, SG)	The Contractor establishes and documents configuration settings for information technology products employed within the information system using a defined security configuration checklist that	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONFIGURATION MANAGEMENT (CM)</b>								
			reflects the most restrictive mode consistent with operational requirements.  Supplemental Guidance: Security configuration checklists (also referred to as common secure configurations, lockdown and hardening guides, security reference guides, or security technical implementation guides) provide recognized, standardized, and established benchmarks that stipulate secure configuration settings and instructions for configuring those information system components to meet operational requirements.					
173.		CM-6(B)	The Contractor implements the configuration settings as per CM-6(A).	DC/Field		X		
174.		CM-6(C)	The Contractor identifies, documents, and approves any deviations from established configuration settings for based on operational requirements.	Org		X		
175.		CM-6(D)	The Contractor monitors and controls changes to the configuration settings in accordance with organizational policies and procedures.	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONFIGURATION MANAGEMENT (CM)</b>								
176.		CM-6(1)	The Contractor employs automated mechanisms to centrally manage, apply, and verify configuration settings.	DC/Field		X		
177.		CM-6(2, SG)	The Contractor employs security safeguards to respond to unauthorized changes to configuration settings.  Supplemental Guidance: Responses to unauthorized changes to the configuration settings can include, for example, alerting designated personnel, restoring established configuration settings, or in extreme cases, halting affected information system processing.	DC/Field		X		
178.	Least Functionality	CM-7(A)	The Contractor configures the information system to provide only essential capabilities.	DC/Field		X		
179.		CM-7(B, SG)	The Contractor prohibits the use of unused or unnecessary functions, ports, protocols, and/or services as defined by the Contractor and EC.  Supplemental Guidance: Where feasible the Contractor must limit component functionality to a single function per device and should disable unused or unnecessary physical and logical	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONFIGURATION MANAGEMENT (CM)</b>								
			ports/protocols (such as USB, FTP, IPv6, HTTP).					
180.		CM-7(1)	The Contractor reviews the information system annually and following any major change to identify unnecessary and/or non-secure functions, ports, protocols, and services; and the organization disables them.	DC/Field		X		
181.		CM-7(3)	The Contractor ensures compliance with defined registration requirements for functions, ports, protocols, and services.	DC/Field		X		
182.		CM-7(5)	(a) The Contractor identifies software programs authorized to execute on the information system;  (b) The Contractor employs a deny-all, permit-by-exception policy to allow the execution of authorized software programs on the information system; and  (c) The Contractor reviews and updates the list of authorized software programs annually.	DC/Field		X		
183.	Information System Component	CM-8(A)	The Contractor develops and documents an inventory of information system components that accurately reflects the current information system.	Org		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONFIGURATION MANAGEMENT (CM)</b>								
	Inventory							
184.		CM-8(B)	The Contractor develops and documents an inventory of information system components that includes all components within the authorization boundary of the information system	Org		X		
185.		CM-8(C)	The Contractor develops and documents an inventory of information system components that is at the level of granularity deemed necessary for tracking and reporting.	Org		X		
186.		CM-8(D)	The Contractor develops and documents an inventory of information system components that includes information deemed necessary to achieve effective information system component accountability.	Org		X		
187.		CM-8(E)	The Contractor reviews and updates the information system component inventory annually and following any major change.	Org		X		
188.		CM-8(1)	The Contractor updates the inventory of information system components as an integral part of component installations, removals, and	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONFIGURATION MANAGEMENT (CM)</b>								
			information system updates.					
189.		CM-8(2)	The Contractor employs automated mechanisms to help maintain an up-to-date, complete, accurate, and readily available inventory of information system components.	DC		X		
190.		CM-8(3)	(a) The Contractor employs automated mechanisms to detect the presence of unauthorized hardware, software, and firmware components within the information system; and  (b) The Contractor takes the following actions when unauthorized components are detected: disables network access by such components and notifies appropriate Contractor personnel.	DC		X		
191.		CM-8(4)	The Contractor includes in the information system component inventory information, a means for identifying by position, individuals responsible/accountable for administering those components.	Org		X		
192.		CM-8(5)	The Contractor verifies that all components within the authorization boundary of the information system are not duplicated in other information	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONFIGURATION MANAGEMENT (CM)</b>								
			system component inventories.					
193.		CM-8(6)	<p>The Contractor includes assessed component configurations and any approved deviations to current deployed configurations in the information system component inventory.</p> <p>Supplemental Guidance: This control enhancement focuses on configuration settings established by the Contractor for system components, the specific components that have been assessed to determine compliance, and any <u>approved deviations</u> from established configuration settings.</p>	Org		X		
194.	Configuration Management Plan	CM-9(A)	The Contractor develops, documents, and implements a configuration management plan for the information system that addresses roles, responsibilities, and configuration management processes and procedures.	Org		X		
195.		CM-9(B)	The Contractor develops, documents, and implements a configuration management plan for the information system that establishes a process for identifying configuration items throughout the	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONFIGURATION MANAGEMENT (CM)</b>								
			system development life cycle and for managing the configuration of the configuration items.					
196.		CM-9(C)	The Contractor develops, documents, and implements a configuration management plan for the information system that defines the configuration items for the information system and places the configuration items under configuration management.	Org		X		
197.		CM-9(D)	The Contractor develops, documents, and implements a configuration management plan for the information system that protects the configuration management plan from unauthorized disclosure and modification.	Org		X		
198.	Software Usage Restrictions	CM-10(A)	The Contractor uses software and associated documentation in accordance with contract agreements and copyright laws.	DC/Field		X		
199.		CM-10(B)	The Contractor tracks the use of software and associated documentation protected by quantity licenses to control copying and distribution.	DC/Field		X		
200.	User Installed	CM-11(A)	The Contractor and EC establish policies governing	DC/Field	X			

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONFIGURATION MANAGEMENT (CM)</b>								
	Software		the installation of software by users.					
201.		CM-11(B)	The Contractor and EC enforce software installation policies through both procedural and automated mechanisms.	DC/Field	X			
202.		CM-11(C)	The Contractor and EC regularly monitor policy compliance.	DC/Field	X			
203.		CM-11(1)	The information system alerts Contractor and/or EC personnel when the unauthorized installation of software is detected.	DC/Field	X			
204.		CM-11(2)	The information system prohibits user installation of software without explicit privileged status.	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONTINGENCY PLANNING (CP)</b>								
205.	Contingency Planning (CP) Policy and	CP-1(A)	The Contractor develops, documents, and disseminates:  (a) A contingency planning policy that	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONTINGENCY PLANNING (CP)</b>								
	Procedures		<p>addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and</p> <p>(b) Procedures to facilitate the implementation of the contingency planning policy and associated contingency planning controls.</p> <p>All policies must contain a level of detail/coverage consistent with EC and GC policy.</p>					
206.		CP-1(B)	<p>The Contractor reviews and updates the current:</p> <p>(a) Contingency planning policy annually; and</p> <p>(b) Contingency planning procedures annually.</p> <p>The review process is documented in the Contractor's Contingency Planning Policy and Procedures.</p>	Org		X		
207.	Contingency Plan	CP-2(A)	The Contractor develops a contingency plan for the	Org	X			

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONTINGENCY PLANNING (CP)</b>								
			information system that:  (a) Identifies, with EC input, essential missions and business functions and associated contingency requirements;  (b) Provides recovery objectives, restoration priorities, and metrics;  (c) Addresses contingency roles, responsibilities, and assigned individuals (Contractor and within EC) with contact information;  (d) Addresses maintaining essential missions and business functions despite an information system disruption, compromise, or failure;  (e) Addresses eventual, full information system restoration without deterioration of the security safeguards originally planned and implemented; and  (f) Is reviewed and approved by EC.					
208.		CP-2(B)	The Contractor distributes copies of the	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONTINGENCY PLANNING (CP)</b>								
			information system contingency plan to identified key Contractor and EC contingency personnel (identified by name and/or by role) and organizational elements.					
209.		CP-2(C)	The Contractor coordinates contingency planning activities with incident handling activities.	Org		X		
210.		CP-2(D)	The Contractor reviews the contingency plan for the information system annually and prior to any Electoral Event.	Org		X		
211.		CP-2(E)	The Contractor updates the contingency plan to address changes to the organization, information system, or environment of operation and problems encountered during contingency plan implementation, execution, or testing.	Org		X		
212.		CP-2(F)	The Contractor communicates contingency plan changes to key Contractor and EC contingency personnel (identified by name and/or by role) and organizational elements.	Org		X		
213.		CP-2(G)	The Contractor protects the contingency plan from unauthorized disclosure and modification.	Org		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONTINGENCY PLANNING (CP)</b>								
214.		CP-2(1)	The Contractor coordinates contingency plan development with organizational elements responsible for related plans.	Org		X		
215.		CP-2(2)	The Contractor conducts capacity planning so that necessary capacity for information processing, telecommunications, and environmental support exists during contingency operations.	Org		X		
216.		CP-2(3)	The Contractor plans for the resumption of <u>essential</u> mission and business functions, the Recovery Time Objective (RTO), within the EC defined time period of contingency plan activation.  There are different RTOs during normal operations (non-event) and during peak periods (during an event): <ul style="list-style-type: none"> <li>• Normal operations RTO: 24 hours</li> <li>• Event RTO: 15 minutes</li> </ul>	Org		X		
217.		CP-2(4)	The Contractor plans for the resumption of <b>non-essential</b> mission and business functions within 24 hours of contingency plan activation.	Org		X		
218.		CP-2(5)	The Contractor plans for the continuance of <b>essential</b> mission and business functions with <b>little</b>	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONTINGENCY PLANNING (CP)</b>								
			<b>or no loss</b> of operational continuity and sustains that continuity until full information system restoration at primary processing and/or storage sites.					
219.		CP-2(6)	The Contractor plans for the transfer of essential mission and business functions to alternate processing and/or storage sites with little or no loss of operational continuity and sustains that continuity through information system restoration to primary processing and/or storage sites.	Org		X		
220.		CP-2(8)	The Contractor and EC identify <b>critical</b> information system assets supporting essential missions and business functions.	Org	X			
221.	Contingency Training	CP-3(A)	The Contractor provides contingency training to information system users consistent with assigned roles and responsibilities <b>upon assuming</b> a contingency role or responsibility.	Org		X		
222.		CP-3(B)	The Contractor provides contingency training to information system users consistent with assigned roles and responsibilities when required by information <b>system changes</b> .	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONTINGENCY PLANNING (CP)</b>								
223.		CP-3(C)	The Contractor provides contingency training to information system users consistent with assigned roles and responsibilities <b>annually</b> .	Org		X		
224.		CP-3(2)	The organization employs automated mechanisms to provide a more thorough and realistic contingency training environment.	Org		X		
225.	Contingency Plan Testing and Exercises	CP-4(A)	The Contractor tests the contingency plan for the information system annually and prior to each General Election Electoral Event to determine the effectiveness of the plan and the organizational readiness to execute the plan.	DC/Field		X		
226.		CP-4(B)	The Contractor and EC review the contingency plan test results.	Org	X			
227.		CP-4(C)	The Contractor initiates corrective actions, if needed.	DC/Field		X		
228.		CP-4(1)	The Contractor coordinates contingency plan testing with organizational elements responsible for related plans.	Org		X		
229.		CP-4(2)	(a) The Contractor tests the contingency plan at the alternate processing site to familiarize contingency personnel with the facility and	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONTINGENCY PLANNING (CP)</b>								
			available resources; and  (b) The Contractor tests the contingency plan at the alternate processing site to evaluate the capabilities of the alternate processing site to support contingency operations.					
230.		CP-4(4)	The organization includes a full recovery and reconstitution of the information system to a known state as part of contingency plan testing.	DC		X		
231.	Alternate Storage Site	CP-6(A)	The Contractor establishes an alternate storage site including necessary agreements to permit the storage and retrieval of information system backup information.	DC		X		
232.		CP-6(B)	The Contractor ensures that the alternate storage site provides information security safeguards equivalent to that of the primary site.	DC		X		
233.		CP-6(1, SG)	The Contractor identifies an alternate storage site that is separated from the primary storage site to reduce susceptibility to the same threats.  Supplemental Guidance: Threats that affect alternate storage sites are typically defined in organizational assessments of risk and include, for	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONTINGENCY PLANNING (CP)</b>								
			example: natural disasters, structural failures, hostile cyber-attacks and errors of omission/commission. The Contractor must determine what is considered a sufficient degree of separation between primary and alternate storage sites based on the types of threats that are of concern.					
234.		CP-6(2)	The Contractor configures the alternate storage site to facilitate recovery operations in accordance with the defined Recovery Time Objectives (RTO) and Recovery Point Objectives (RPO).	DC		X		
235.		CP-6(3)	The Contractor identifies potential accessibility problems to the alternate storage site in the event of an area-wide disruption or disaster and outlines explicit mitigation actions.	DC		X		
236.	Alternate Processing Site	CP-7(A)	The Contractor establishes an alternate processing site including necessary agreements to permit the transfer and resumption of information system operations for essential missions/business functions within a time period consistent with RTO and RPO when the primary processing capabilities are unavailable.	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONTINGENCY PLANNING (CP)</b>								
237.		CP-7(B)	The Contractor ensures that equipment and supplies required to transfer and resume operations are available at the alternate processing site or contracts are in place to support delivery to the site within the organization-defined time period for transfer/resumption.	DC		X		
238.		CP-7(C)	The Contractor ensures that the alternate processing site provides information security safeguards equivalent to that of the primary site.	DC		X		
239.		CP-7(1)	The Contractor identifies an alternate processing site that is separated from the primary processing site to reduce susceptibility to the same threats.	DC		X		
240.		CP-7(2)	The Contractor identifies potential accessibility problems to the alternate processing site in the event of an area-wide disruption or disaster and outlines explicit mitigation actions.	DC		X		
241.		CP-7(3)	The Contractor develops alternate processing site agreements that contain priority-of-service provisions in accordance with organizational availability requirements (including recovery time objectives).	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONTINGENCY PLANNING (CP)</b>								
242.		CP-7(4)	The Contractor prepares the alternate processing site so that the site is ready to be used as the operational site supporting essential missions and business functions.	DC		X		
243.		CP-7(6)	The Contractor plans and prepares for circumstances that preclude returning to the primary processing site.	Org		X		
244.	Telecommunications Services	CP-8(A)	The Contractor establishes alternate telecommunications services including necessary agreements to permit the resumption of information system operations for essential missions and business functions within the defined RTO when the primary telecommunications capabilities are unavailable at either the primary or alternate processing or storage sites	DC		X		
245.		CP-8(1)	(a) The Contractor develops primary and alternate telecommunications service agreements that contain priority-of-service provisions in accordance with organizational availability requirements (including recovery time objectives).	Org		X		
246.		CP-8(2)	The Contractor obtains alternate telecommunications services to reduce the	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONTINGENCY PLANNING (CP)</b>								
			likelihood of sharing a single point of failure with primary telecommunications services.					
247.		CP-8(3)	The Contractor obtains alternate telecommunications services from providers that are separated from primary service providers to reduce susceptibility to the same threats.	DC		X		
248.		CP-8(5)	The Contractor tests alternate telecommunication services prior to any Electoral Event.	DC		X		
249.	Information System Backup	CP-9(A)	The Contractor conducts backups of user-level information contained in the information system at frequency consistent with RTO and RPO defined in the approved Service Level Agreement.	DC/Field		X		
250.		CP-9(B)	The Contractor conducts backups of system-level information contained in the information system at a frequency consistent with RTO and RPO.	DC/Field		X		
251.		CP-9(C)	The Contractor conducts backups of information system documentation including security-related documentation.	DC/Field		X		
252.		CP-9(D)	The Contractor protects the confidentiality, integrity, and availability of backup information at	DC/Field		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONTINGENCY PLANNING (CP)</b>								
			storage locations.					
253.		CP-9(AA)	EC and the Contractor determine retention periods for essential business information and archived backups (10 years).	Org	X			
254.		CP-9(1)	The Contractor tests backup information to verify media reliability and information integrity.	DC/Field		X		
255.		CP-9(2)	The Contractor uses a sample of backup information in the restoration of selected information system functions as part of contingency plan testing.	DC/Field		X		
256.		CP-9(3)	The Contractor stores backup copies of critical information system software and other security-related information in a separate facility or in a fire-rated container that is not collocated with the operational system.	DC		X		
257.		CP-9(5)	The Contractor transfers information system backup information to the alternate storage site at a transfer rate consistent with the RTO and RPO.	DC		X		
258.		CP-9(6)	The Contractor accomplishes information system backup by maintaining a redundant secondary system that is <b>not collocated</b> with the primary	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONTINGENCY PLANNING (CP)</b>								
			system and that can be activated without loss of information or disruption to operations in accordance with the defined RTO and RPO.					
259.		CP-9(7)	The Contractor enforces dual authorization for the deletion or destruction of backup information.	DC/Field		X		
260.	Information System Recovery and Reconstitution	CP-10(A)	The Contractor provides for the recovery and reconstitution of the information system to a known state after a disruption, compromise, or failure.	DC/Field		X		
261.		CP-10(2)	The information system implements transaction recovery for systems that are transaction-based.	DC/Field		X		
262.		CP-10(4)	The Contractor provides the capability to restore information system components within a timeframe consistent with the defined RTO from configuration-controlled and integrity-protected information representing a known, operational state for the components.	DC/Field		X		
263.		CP-10(6)	The Contractor protects backup and restoration hardware, firmware, and software.	DC		X		
264.	Alternate Communications	CP-11(A)	The information system provides the capability to employ alternative communications protocols in	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>CONTINGENCY PLANNING (CP)</b>								
	Protocols		support of maintaining continuity of operations.					

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>IDENTIFICATION and AUTHENTICATION (IA)</b>								
265.	Identification and Authentication Policy and Procedures	IA-1(A)	The Contractor develops, documents, and disseminates:  (a) An identification and authentication policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and  (b) Procedures to facilitate the implementation of the identification and authentication policy and associated identification and authentication controls.  All policies must contain a level of detail/coverage consistent with GC policy.	Org		X		
266.		IA-1(B)	The Contractor reviews and updates the current:	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>IDENTIFICATION and AUTHENTICATION (IA)</b>								
			(a) Identification and authentication policy annually and prior to any Electoral Event; and  (b) Identification and authentication procedures annually and prior to any Electoral Event.  The review process is documented in the Identification and Authentication Policy and Procedures.					
267.	Identification and Authentication (organizational users)	IA-2(A, SG)	The information system <u>uniquely</u> identifies and authenticates organizational users (or processes acting on behalf of organizational users).  Supplemental Guidance: Organizational users include employees or individuals that the Contractor deems to have equivalent status of an employee (e.g. sub-contractors).	DC/Field		X		
268.		IA-2(1)	The information system implements multifactor authentication for network access to <b>privileged</b> accounts.	DC		X		
269.		IA-2(3)	The information system implements multifactor authentication for local access to <b>privileged</b> accounts.	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>IDENTIFICATION and AUTHENTICATION (IA)</b>								
270.		IA-2(6)	The information system implements multifactor authentication for network access to <b>privileged</b> accounts such that one of the factors is provided by a device separate from the system gaining access. The authentication device must meet GC defined strength of mechanism requirements (as per <i>ITSG-31 User Authentication for IT Systems</i> ).	DC		X		
271.		IA-2(8)	The information system implements replay-resistant authentication mechanisms for network access to <b>privileged</b> accounts.	DC		X		
272.		IA-2(11)	The information system implements multifactor authentication for <b>remote access</b> to privileged <u>and</u> non-privileged accounts such that one of the factors is provided by a device separate from the system gaining access. The authentication device must meet EC defined strength of mechanism requirements.	DC/Field		X		
273.	Device Identification and Authentication	IA-3(A)	The information system uniquely identifies and authenticates devices before establishing a connection.	DC/Field		X		
274.		IA-3(1)	The information system authenticates devices before establishing a connection using bidirectional	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>IDENTIFICATION and AUTHENTICATION (IA)</b>								
			authentication that is cryptographically based.					
275.		IA-3(3, SG)	(a) The Contractor standardizes dynamic address allocation lease information and the lease duration assigned to devices; and  (b) The Contractor audits lease information when assigned to a device.  Supplemental Guidance: DHCP-enabled clients obtaining <i>leases</i> for IP addresses from DHCP servers is a typical example of dynamic address allocation for devices.	DC/Field		X		
276.	Identifier Management	IA-4(A)	The Contractor manages information system identifiers by receiving authorization specific defined Contractor personnel/roles to assign an individual, group, role, or device identifier.	Org		X		
277.		IA-4(B)	The Contractor manages information system identifiers by selecting an identifier that identifies an individual, group, role, or device.	Org		X		
278.		IA-4(C)	The Contractor manages information system identifiers by assigning the identifier to the intended individual, group, role, or device.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>IDENTIFICATION and AUTHENTICATION (IA)</b>								
279.		IA-4(D)	The Contractor manages information system identifiers by preventing reuse of identifiers for 1 year.	Org		X		
280.		IA-4(E)	The Contractor manages information system identifiers by disabling the identifier after a defined time period of inactivity based upon the access requirements of the user's role.	Org		X		
281.		IA-4(1)	The Contractor prohibits the use of information system account identifiers that are the same as public identifiers for individual electronic mail accounts.	Org		X		
282.		IA-4(2)	The Contractor requires that the registration process to receive an individual identifier includes supervisor authorization.	Org		X		
283.		IA-4(3)	The Contractor requires multiple forms of certification of individual identification such as documentary evidence or a combination of documents and biometrics be presented to the registration authority.	Org		X		
284.		IA-4(5)	The Contractor requires that the registration process to receive an individual identifier be conducted in person before a designated registration authority.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>IDENTIFICATION and AUTHENTICATION (IA)</b>								
285.	Authenticator Management	IA-5(A)	The Contractor manages information system authenticators by verifying, as part of the initial authenticator distribution, the identity of the individual, group, role, or device receiving the authenticator.	Org		X		
286.		IA-5(B)	The Contractor manages information system authenticators by establishing initial authenticator content for authenticators defined by the organization.	Org		X		
287.		IA-5(C)	The Contractor manages information system authenticators by ensuring that authenticators have sufficient strength of mechanism for their intended use.	Org		X		
288.		IA-5(D)	The Contractor manages information system authenticators by establishing and implementing administrative procedures (as defined in the Contractor's Identity and Authentication policy and procedures) for initial authenticator distribution, for lost/compromised or damaged authenticators, and for revoking authenticators.	Org		X		
289.		IA-5(E)	The Contractor manages information system authenticators by changing the default content of	Org		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>IDENTIFICATION and AUTHENTICATION (IA)</b>								
			authenticators prior to information system installation.					
290.		IA-5(F)	The Contractor manages information system authenticators by establishing minimum and maximum lifetime restrictions and reuse conditions for authenticators.	Org		X		
291.		IA-5(G)	The Contractor manages information system authenticators by changing/refreshing authenticators every 3 months.	Org		X		
292.		IA-5(H)	The Contractor manages information system authenticators by protecting authenticator content from unauthorized disclosure and modification.	Org		X		
293.		IA-5(I)	The Contractor manages information system authenticators by requiring individuals to take, and having devices implement, specific security safeguards to protect authenticators.	Org		X		
294.		IA-5(J)	The Contractor manages information system authenticators by changing authenticators for group/role accounts when membership to those accounts changes	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>IDENTIFICATION and AUTHENTICATION (IA)</b>								
295.		IA-5(1)	<p>(a) The information system, for password-based authentication, enforces minimum password complexity of 8 characters, at least one lower case character, upper case character, number and symbol;</p> <p>(b) The information system, for password-based authentication, enforces at least the following number of changed characters when new passwords are created: five (5).</p> <p>(c) The information system, for password-based authentication, stores and transmits only cryptographically-protected passwords;</p> <p>(d) The information system, for password-based authentication, enforces password maximum lifetime restriction of 3 months. Passwords should not expire during an event. To avoid this eventuality, all passwords should be changed prior to any Electoral Event.</p> <p>(e) The information system, for password-based authentication prohibits password reuse for twenty-four (24) generations; and</p> <p>(f) The information system, for password-based authentication allows the use of a temporary</p>	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>IDENTIFICATION and AUTHENTICATION (IA)</b>								
			password for system logons with an immediate change to a permanent password.					
296.		IA-5(2)	(a) The information system, for PKI-based authentication, validates certifications by constructing and verifying a certification path to an accepted trust anchor including checking certificate status information;  (b) The information system, for PKI-based authentication, enforces authorized access to the corresponding private key;  (c) The information system, for PKI-based authentication, maps the authenticated identity to the account of the individual or group; and  (d) The information system, for PKI-based authentication, implements a local cache of revocation data to support path discovery and validation in case of inability to access revocation information via the network.	DC		X		
297.		IA-5(3)	The Contractor requires that the registration process to receive an authenticator for privileged access be conducted in person; before the registration authority	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>IDENTIFICATION and AUTHENTICATION (IA)</b>								
			with authorization by the user's supervisor.					
298.		IA-5(5)	The Contractor must provide unique authenticators or change default authenticators prior to delivery.	Org		X		
299.		IA-5(6)	The Contractor protects authenticators commensurate with the security category of the information to which use of the authenticator permits access.	Org		X		
300.		IA-5(7)	The Contractor ensures that unencrypted static authenticators are not embedded in applications or access scripts or stored on function keys.	DC/Field		X		
301.		IA-5(9)	The Contractor coordinates with the Technical Authority for cross-organization management of credentials.	Org	X			
302.		IA-5(13)	The information system prohibits the use of cached authenticators after 1 hour.	DC/Field		X		
303.		IA-5(14)	The Contractor, for PKI-based authentication, employs a deliberate organization-wide methodology for managing the content of PKI trust stores installed across all platforms including networks, operating systems, browsers, and applications.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>IDENTIFICATION and AUTHENTICATION (IA)</b>								
304.	Authenticator Feedback	IA-6(A)	The information system obscures feedback of authentication information during the authentication process to protect the information from possible exploitation/use by unauthorized individuals.	DC/Field		X		
305.	Cryptographic Module Authentication	IA-7(A)	The information system implements mechanisms for authentication to a cryptographic module that meet the requirements of applicable GC legislation and TBS policies, directives, and standards for such authentication.  These include, but are not limited to: CSE ITSA-11 <i>Approved Cryptographic Algorithms for the Protection of Protected Information</i> ; CSE ITSG-31 <i>User Authentication for IT Systems</i> ; and NIST FIPS PUB 140-2 <i>Security Requirements for Cryptographic Modules</i> .	DC/Field		X		
306.	Identification and Authentication (non-organizational users)	IA-8(A)	The information system uniquely identifies and authenticates non-organizational users (or processes acting on behalf of non-organizational users).	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>INCIDENT RESPONSE (IR)</b>								
307.	Incident Response Policy and Procedures	IR-1(A)	<p>The Contractor develops, documents, and disseminates:</p> <p>(a) An incident response policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and</p> <p>(b) Procedures to facilitate the implementation of the incident response policy and associated incident response controls.</p> <p>All policies must contain a level of detail/coverage consistent with EC and GC policy.</p>	Org		X		
308.		IR-1(B)	<p>The Contractor reviews and updates the current:</p> <p>(a) Incident response policy annually and prior to any Electoral Event; and</p> <p>(b) Incident response procedures annually and prior to any Electoral Event.</p> <p>The review process is documented in the Incident Response Policy and Procedures.</p>	Org		X		
309.		IR-1(AA)	<p>The Contractor's incident response policy and procedures facilitate the incorporation of heightened levels of readiness during emergency and heightened IT threat situations (such</p>	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>INCIDENT RESPONSE (IR)</b>								
			as during an event) in accordance with the TBS Operational Security Standard - <i>Readiness Levels for Federal Government Facilities</i> and the TBS Operational Security Standard - <i>Management of Information Technology Security (MITS)</i> .					
310.	Incident Response Training	IR-2(A)	The Contractor provides incident response training to information system users consistent with assigned roles and responsibilities upon assuming an incident response role or responsibility.	Org		X		
311.		IR-2(B)	The Contractor provides incident response training to information system users consistent with assigned roles and responsibilities when required by information system changes.	Org		X		
312.		IR-2(C)	The Contractor provides incident response training to information system users consistent with assigned roles and responsibilities annually and prior to any Electoral Event.	Org		X		
313.		IR-2(1)	The Contractor incorporates simulated events into incident response training to facilitate effective response by personnel in crisis situations.	Org		X		
314.	Incident Response Testing and Exercises	IR-3(A)	The Contractor tests the incident response capability for the information system annually and prior to any Electoral Event to determine the incident response effectiveness and	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>INCIDENT RESPONSE (IR)</b>								
			documents the results.					
315.	Incident Handling	IR-4(A)	The Contractor implements an incident handling capability for security incidents that includes preparation, detection and analysis, containment, eradication, and recovery.	Org		X		
316.		IR-4(B)	The Contractor coordinates incident handling activities with contingency planning activities (including EC Business Continuity Plans (BCP)).	Org	X			
317.		IR-4(C)	The Contractor incorporates lessons learned from ongoing incident handling activities into incident response procedures, training, and testing/exercises, and implements the resulting changes accordingly.	Org		X		
318.		IR-4(3)	The Contractor identifies classes of incidents, and actions to take in response to those classes of incidents, in order to ensure continuation of organizational missions and business functions.	Org		X		
319.		IR-4(8)	The Contractor coordinates with EC to correlate and share incident information to achieve a cross-organization perspective on incident awareness and more effective incident responses.	Org	X			
320.	Incident	IR-5(A)	The Contractor tracks and documents information system	Org		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>INCIDENT RESPONSE (IR)</b>								
	Monitoring		security incidents.					
321.	Incident Reporting	IR-6(A)	The Contractor requires personnel to report suspected security incidents.	Org		X		
322.		IR-6(B)	The Contractor reports security incident information to EC in real time.	Org		X		
323.		IR-6(2)	The Contractor reports information system vulnerabilities associated with reported security incidents to EC.	Org		X		
324.	Incident Response Assistance	IR-7(A)	The Contractor provides an incident response support resource that offers advice and assistance to users of the information system for the handling and reporting of security incidents.	Org		X		
325.	Incident Response Plan	IR-8(A)	The Contractor develops an incident response plan that: <ul style="list-style-type: none"> <li>(a) Provides the Contractor with a roadmap for implementing its incident response capability;</li> <li>(b) Describes the structure and organization of the incident response capability;</li> <li>(c) Provides a high-level approach for how the incident response capability fits into the overall organization;</li> </ul>	Org	X			

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>INCIDENT RESPONSE (IR)</b>								
			(d) Meets the unique requirements of the system and EC, which relate to mission, size, structure, and functions;  (e) Defines reportable incidents;  (f) Provides metrics for measuring the incident response capability within the organization;  (g) Defines the resources and management support needed to effectively maintain and mature an incident response capability; and  (h) Is reviewed and approved by EC following contract award.					
326.		IR-8(B)	The Contractor distributes copies of the incident response plan to all incident response personnel (identified position and/or by role) within the Contractor and EC.	Org		X		
327.		IR-8(C)	The Contractor reviews the incident response plan annually.	Org		X		
328.		IR-8(D)	The Contractor updates the incident response plan to address system/organizational changes or problems encountered during plan implementation, execution, or testing.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>INCIDENT RESPONSE (IR)</b>								
329.		IR-8(E)	The Contractor communicates incident response plan changes to all incident response personnel (identified position and/or by role) within the Contractor and EC. Changes to the IR plan which could impact service levels must be reviewed and approved by the EC IT Security Coordinator.	Org		X		
330.		IR-8(F)	The Contractor protects the incident response plan from unauthorized disclosure and modification.	Org		X		
331.	Information Spillage Response	IR-9(A, SG)	The Contractor responds to information spills by identifying the specific information involved in the information system contamination.  Supplemental Guidance: Information spillage refers to instances of sensitive information being inadvertently placed on information systems that are not authorized to process such information.	Org		X		
332.		IR-9(B)	The Contractor responds to information spills by alerting EC of the information spill using a method of communication not associated with the spill.	Org		X		
333.		IR-9(C)	The Contractor responds to information spills by isolating the contaminated information system or system	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>INCIDENT RESPONSE (IR)</b>								
			component.					
334.		IR-9(D)	The Contractor responds to information spills by eradicating the information from the contaminated information system or component. The Contractor must ensure that source data and audit records are not deleted or modified during this process.	Org		X		
335.		IR-9(E)	The Contractor responds to information spills by identifying other information systems or system components that may have been subsequently contaminated.	Org		X		
336.		IR-9(1)	The Contractor assigns personnel or roles with responsibility for responding to information spills.	Org		X		
337.		IR-9(2)	The organization provides information spillage response training to Contractor personnel annually and prior to any Electoral Event.	Org		X		
338.		IR-9(3)	The Contractor implements procedures to ensure that organizational personnel impacted by information spills can continue to carry out assigned tasks while contaminated systems are undergoing corrective actions.	Org (DC)		X		
339.		IR-9(4)	The Contractor employs security safeguards for personnel exposed to information not within assigned access	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>INCIDENT RESPONSE (IR)</b>								
			authorizations.					
340.		IR-10(A)	The Contractor establishes an integrated team of forensic/malicious code analysts, tool developers, and real-time operations personnel.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>MAINTENANCE (MA)</b>								
341.	System Maintenance (MA) Policy and Procedures	MA-1(A)	<p>The Contractor develops, documents, and disseminates:</p> <p>(a) A system maintenance policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and</p> <p>(b) Procedures to facilitate the implementation of the system maintenance policy and associated system maintenance controls.</p> <p>All policies must contain a level of detail/coverage consistent with GC policy.</p>	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>MAINTENANCE (MA)</b>								
342.		MA-1(B)	The Contractor reviews and updates the current:  (a) System maintenance policy annually; and  (b) System maintenance procedures annually.  The review process is documented in the Maintenance Policy and Procedures.	Org		X		
343.	Controlled Maintenance	MA-2(A)	The Contractor schedules, performs, documents, and reviews records of maintenance and repairs on information system components in accordance with manufacturer or Contractor specifications and/or organizational requirements.	Org		X		
344.		MA-2(B)	The Contractor approves and monitors all maintenance activities, whether performed on site or remotely and whether the equipment is serviced on site or removed to another location.	Org		X		
345.		MA-2(C)	The Contractor must define the personnel or roles with authority to approve off-site maintenance or repairs of the information system or system components. Explicit approval from the defined personnel is required prior to the removal of the information system or system components from organizational facilities for off-site maintenance or	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>MAINTENANCE (MA)</b>								
			repairs.					
346.		MA-2(D)	The Contractor sanitizes equipment to remove all information from associated media prior to removal from organizational facilities for off-site maintenance or repairs.	DC/Field		X		
347.		MA-2(E)	The Contractor checks all potentially impacted security controls to verify that the controls are still functioning properly following maintenance or repair actions.	Org		X		
348.		MA-2(F)	The Contractor includes maintenance-related information in organizational maintenance records.	Org		X		
349.	Maintenance Tools	MA-3(A)	The Contractor approves, controls, and monitors information system maintenance tools.	Org		X		
350.		MA-3(2)	The Contractor checks media containing diagnostic and test programs for malicious code before the media are used in the information system.	Org		X		
351.	Non-Local Maintenance	MA-4(A)	The Contractor approves and monitors non-local maintenance and diagnostic activities.	Org		X		
352.		MA-4(B)	The Contractor allows the use of non-local maintenance and diagnostic tools only as consistent with organizational policy and as documented in the security plan for the information	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>MAINTENANCE (MA)</b>								
			system.					
353.		MA-4(C)	The Contractor employs strong authenticators in the establishment of non-local maintenance and diagnostic sessions.	Org		X		
354.		MA-4(D)	The Contractor maintains records for non-local maintenance and diagnostic activities.	Org		X		
355.		MA-4(1)	(a) The Contractor audits non-local maintenance and diagnostic sessions; and  (b) The Contractor reviews the records of the maintenance and diagnostic sessions.	Org		X		
356.		MA-4(2)	The Contractor documents in the security plan for the information system, the policies and procedures for the establishment and use of non-local maintenance and diagnostic connections.	Org		X		
357.		MA-4(3)	(a) The Contractor requires that non-local maintenance and diagnostic services be performed from an information system that implements a security capability <b>comparable</b> to the capability implemented on the system being serviced; or	DC/Field		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>MAINTENANCE (MA)</b>								
			(b) The Contractor <b>removes</b> the component to be serviced from the information system and prior to non-local maintenance or diagnostic services, sanitizes the component (with regard to organizational information) before removal from organizational facilities, and after the service is performed, inspects and sanitizes the component (with regard to potentially malicious software) before reconnecting the component to the information system.					
358.		MA-4(4)	(a) The Contractor protects non-local maintenance sessions by employing replay resistant authenticators; and  (b) The Contractor protects non-local maintenance sessions by separating the maintenance sessions from other network sessions with the information system by either:  - Physically separated communications paths; or  - Logically separated communications paths based upon encryption compliant with the requirements of control SC-13.	DC/Field		X		
359.		MA-4(5)	(a) The Contractor requires approval prior to each non-local maintenance session; and  (b) The Contractor notifies the EC IT Security Coordinator of	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>MAINTENANCE (MA)</b>								
			the date and time of planned non-local maintenance.					
360.		MA-4(6)	The information system implements cryptographic mechanisms to protect the integrity and confidentiality of non-local maintenance and diagnostic communications.	DC/Field		X		
361.	Maintenance Personnel	MA-5(A)	The Contractor establishes a process for maintenance personnel authorization and maintains a list of authorized maintenance organizations or personnel.	Org		X		
362.		MA-5(B)	The Contractor ensures that non-escorted personnel performing maintenance on the information system have required access authorizations.	Org		X		
363.		MA-5(C)	The Contractor designates organizational personnel with required access authorizations and technical competence to supervise the maintenance activities of personnel who do not possess the required access authorizations.	Org		X		
364.		MA-5(1)	(a) The Contractor implements procedures for the use of maintenance personnel that lack appropriate security clearances or are not Canadian citizens, that include the following requirements: <ul style="list-style-type: none"> <li>• Maintenance personnel who do not have needed access authorizations, clearances, or formal access</li> </ul>	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>MAINTENANCE (MA)</b>								
			approvals are escorted and supervised by approved organizational personnel who are fully cleared, have appropriate access authorizations, and are technically qualified; <ul style="list-style-type: none"> <li>• Prior to initiating maintenance or diagnostic activities by personnel who do not have needed access authorizations, clearances or formal access approvals, all volatile information storage components within the information system are sanitized and all non-volatile storage media are removed or physically disconnected from the system and secured; and</li> </ul> (b) The organization develops and implements alternate security safeguards in the event an information system component cannot be sanitized, removed, or disconnected from the system.					
365.		MA-5(5)	The Contractor ensures that non-escorted personnel performing maintenance activities not directly associated with the information system but in the physical proximity of the system, have required access authorizations.	Org		X		
366.	Timely Maintenance	MA-6(A)	The Contractor obtains maintenance support and/or spare parts for information system components within a defined time period of failure as dictated by the Business Continuity	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>MAINTENANCE (MA)</b>								
			Plan (BCP) and IT Continuity Plan.					

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>MEDIA PROTECTION (MP)</b>								
367.	Media Protection Policy and Procedures	MP-1(A)	The Contractor develops, documents, and disseminates:  (a) A media protection policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and  (b) Procedures to facilitate the implementation of the media protection policy and associated media protection controls.  All policies must contain a level of detail/coverage consistent with GC guidelines.	Org		X		
368.		MP-1(B)	The Contractor reviews and updates the current:  (a) Media protection policy annually; and  (b) Media protection procedures annually.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>MEDIA PROTECTION (MP)</b>								
			The review process is documented in the Media Protection Policy and Procedures.					
369.	Media Access	MP-2(A)	The Contractor restricts access to digital and/or non-digital media to defined personnel or roles with an operational need to know.	Org		X		
370.	Media Marking	MP-3(A)	The Contractor marks information system media indicating the distribution limitations, handling caveats, and applicable security markings (if any) of the information.	Org		X		
371.	Media Storage	MP-4(A)	The Contractor physically controls and securely stores digital and non-digital media within physically controlled areas and in accordance with the RCMP G1-001, <i>Security Equipment Guide</i> .	Org		X		
372.		MP-4(B)	The Contractor protects information system media until the media are destroyed or sanitized using approved equipment, techniques, and procedures.	Org		X		
373.	Media Transport	MP-5(A)	The Contractor protects and controls information system media during transport outside of controlled areas using security safeguards in accordance with the TBS <i>Operational Security Standard on Physical Security</i> and the RCMP G1-009, <i>Transport and Transmittal of Protected and Classified Information</i> .	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>MEDIA PROTECTION (MP)</b>								
374.		MP-5(B)	The Contractor maintains accountability for information system media during transport outside of controlled areas.	Org		X		
375.		MP-5(C)	The Contractor documents activities associated with the transport of information system media.	Org		X		
376.		MP-5(D)	The Contractor restricts the activities associated with the transport of information system media to authorized personnel.	Org		x		
377.		MP-5(3)	The Contractor employs an identified custodian during transport of information system media outside of controlled areas.	Org		X		
378.		MP-5(4)	The information system implements cryptographic mechanisms compliant with the requirements of Control SC-13 to protect the confidentiality and integrity of information stored on digital media during transport outside of controlled areas.	DC/Field		X		
379.	Media Sanitation	MP-6(A)	The Contractor sanitizes information system media prior to disposal, release out of organizational control, or release for reuse in accordance with CSE's <i>ITSG-06: Clearing and Declassifying Electronic Data Storage Devices</i> sanitization techniques and procedures.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>MEDIA PROTECTION (MP)</b>								
380.		MP-6(B)	The Contractor employs sanitization mechanisms with the strength and integrity commensurate with the security category or classification of the information.	Org		X		
381.		MP-6(1)	The Contractor reviews, approves, tracks, documents, and verifies media sanitization and disposal actions.	Org		X		
382.		MP-6(2)	The Contractor tests sanitization equipment and procedures annually to verify that the intended sanitization is being achieved.	Org		X		
383.		MP-6(3)	The Contractor applies non-destructive sanitization techniques to portable storage devices prior to connecting such devices to the information system under the following circumstances: when such devices are first purchased from the manufacturer or Contractor prior to initial use and when organizations lose a positive chain of custody of the storage device.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		

PHYSICAL and ENVIRONMENTAL PROTECTION (PE)								
384.	Physical and Environmental Protection Policy and Procedures	PE-1(A)	<p>The Contractor develops, documents, and disseminates:</p> <p>(a) A physical and environmental protection policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and</p> <p>(b) Procedures to facilitate the implementation of the physical and environmental protection policy and associated physical and environmental protection controls.</p> <p>All policies must contain a level of detail/coverage consistent with EC and GC policy.</p>	Org		X		
385.		PE-1(B)	<p>The Contractor reviews and updates the current:</p> <p>(a) Physical and environmental protection policy annually; and</p> <p>(b) Physical and environmental protection procedures annually.</p> <p>The review process is documented in the Physical and Environmental Protection Policy and Procedures.</p>	Org		X		
386.	Physical Access Authorizations	PE-2(A)	<p>The Contractor develops, approves, and maintains a list of individuals with authorized access to the facility where the information system resides (the DC and storage for the E-</p>	Org		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PHYSICAL and ENVIRONMENTAL PROTECTION (PE)</b>								
			Poll Devices).					
387.		PE-2(B)	The Contractor issues authorization credentials for facility access.	Org		X		
388.		PE-2(C)	The Contractor reviews the access list detailing authorized facility access by individuals annually and after any major organizational change.	Org		X		
389.		PE-2(D)	The Contractor removes individuals from the facility access list when access is no longer required.	Org		X		
390.		PE-2(1)	The Contractor authorizes physical access to the facility where the information system resides based on position or role.	Org		X		
391.		PE-2(100)	The Contractor issues an identification card to all personnel, which as a minimum includes the name of the organization, the bearer's name and photo, a unique card number and an expiry date.	Org		X		
392.	Physical Access Control	PE-3(A)	The Contractor enforces physical access authorizations at entry/exit points to the facility where the information system resides by:  (a) Verifying individual access authorizations before	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PHYSICAL and ENVIRONMENTAL PROTECTION (PE)</b>								
			granting access to the facility; and  (b) Controlling ingress/egress to the facility using physical access control systems/devices and guards;					
393.		PE-3(B)	The Contractor maintains physical access audit logs for the greater of 2 years or until EC has confirmed receipt of the Contractor Central Server backup as described in SOR requirements 285 and 286. At the end of the Term of the Contract, the Contractor must provide a copy of all physical access audit logs in the Contractor's possession to EC.	Org		X		
394.		PE-3(D)	The Contractor escorts visitors and monitors visitor activity.	Org		X		
395.		PE-3(E)	The Contractor secures keys, combinations, and other physical access devices.	Org		X		
396.		PE-3(F)	The Contractor inventories physical access devices annually.	Org		X		
397.		PE-3(G)	The Contractor changes combinations and keys annually and/or when keys are lost, combinations are compromised, or individuals are transferred or terminated.	Org		X		
398.		PE-3(1)	The Contractor enforces physical access authorizations to the information system (such as restricting access to server rooms) in addition to the physical access controls for the facility.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PHYSICAL and ENVIRONMENTAL PROTECTION (PE)</b>								
399.		PE-3(3)	The Contractor employs guards and/or alarms to monitor every physical access point to the facility where the information system resides 24 hours per day, 7 days per week.	Org		X		
400.		PE-3(4)	The Contractor uses lockable physical casings to protect information system components from unauthorized physical access.	Org		X		
401.	Access Control for Transmission Medium	PE-4(A)	The Contractor controls physical access to information system distribution and transmission lines within Contractor facilities.	Org		X		
402.	Access Control for Output Devices	PE-5(A)	The Contractor controls physical access to information system output devices to prevent unauthorized individuals from obtaining the output.	Org		X		
403.	Monitoring Physical Access	PE-6(A)	The Contractor monitors physical access to the facility where the information system resides to detect and respond to physical security incidents.	Org		X		
404.		PE-6(B)	The Contractor reviews physical access logs monthly and upon occurrence of, or potential indications of, unauthorized access/events.	Org		X		
405.		PE-6(C)	The organization coordinates results of reviews and investigations with the organizational incident response	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PHYSICAL and ENVIRONMENTAL PROTECTION (PE)</b>								
			capability.					
406.		PE-6(1)	The Contractor monitors physical intrusion alarms and surveillance equipment.	Org		X		
407.		PE-6(4)	The Contractor monitors physical access to the information system (such as access to server rooms) in addition to the physical access monitoring of the facility.	Org		X		
408.	Access Records	PE-8(A)	The Contractor maintains visitor access records to the facility where the information system resides for the greater of 2 years or until EC has confirmed receipt of the Contractor Central Server backup as described in SOR requirements 285 and 286. At the end of the Term of the Contract, the Contractor must provide a copy of all visitor access records to the facility where the information system resides, then in the Contractor's possession, to EC.	Org		X		
409.		PE-8(B)	The Contractor reviews visitor access records annually.	Org		X		
410.	Power Equipment and Power Cabling	PE-9(A)	The Contractor protects power equipment and power cabling for the DC from damage and destruction.	DC		X		
411.		PE-9(1)	The Contractor's DC employs redundant power cabling paths that are physically separated to ensure that power continues to flow in the event one of the cables is cut or otherwise	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PHYSICAL and ENVIRONMENTAL PROTECTION (PE)</b>								
			damaged.					
412.		PE-9(2)	The Contractor's DC employs automatic voltage controls.	DC		X		
413.	Emergency Shut Off	PE-10(A)	The Contractor provides the capability of shutting off power to the information system or individual system components in emergency situations.	DC		X		
414.		PE-10(B)	The Contractor places emergency shutoff switches or devices to facilitate safe and easy access for personnel.	DC		X		
415.		PE-10(C)	The Contractor protects emergency power shutoff capability from unauthorized activation.	DC		X		
416.	Emergency Power	PE-11(A)	The Contractor provides a short-term uninterruptible power supply to facilitate transition of the DC/information system to long-term alternate power in the event of a primary power source loss.	DC		X		
417.		PE-11(1)	The Contractor provides a long-term alternate power supply for the DC/information system that is capable of maintaining minimally required operational capability in the event of an extended loss of the primary power source.	DC		X		
418.		PE-11(2)	The Contractor provides a long-term alternate power supply for the DC/ information system that is:	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PHYSICAL and ENVIRONMENTAL PROTECTION (PE)</b>								
			(a) Self-contained;  (b) Not reliant on external power generation; and  (c) Capable of maintaining full operational capability in the event of an extended loss of the primary power source.					
419.	Emergency Lighting	PE-12(A)	The Contractor employs and maintains automatic emergency lighting for the DC that activates in the event of a power outage or disruption and that covers emergency exits and evacuation routes within the facility.	DC		X		
420.		PE-12(1)	The Contractor provides emergency lighting for all areas within the facility supporting essential missions and business functions.	Org		X		
421.	Fire Protection	PE-13(A)	The Contractor employs and maintains fire suppression and detection devices/systems for the DC that are supported by an independent energy source.	DC		X		
422.		PE-13(2)	The Contractor employs fire suppression devices/systems for the information system that provide automatic notification of any activation to the Contractor and emergency responders in the event of a fire.	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PHYSICAL and ENVIRONMENTAL PROTECTION (PE)</b>								
423.		PE-13(3)	The Contractor employs an automatic fire suppression capability for the information system when the facility is not staffed on a continuous basis.	DC		X		
424.		PE-13(4)	The Contractor ensures that the facility undergoes annual inspections by authorized and qualified inspectors and resolves identified deficiencies within 30 days.	DC		X		
425.	Temperature and Humidity Controls	PE-14(A)	The Contractor maintains temperature and humidity levels within the facility where the information system resides.	DC		X		
426.		PE-14(B)	The Contractor monitors temperature and humidity levels at regular, defined frequencies.	DC		X		
427.		PE-14(1)	The Contractor employs automatic temperature and humidity controls in the facility to prevent fluctuations potentially harmful to the information system.	DC		X		
428.		PE-14(2)	The Contractor employs temperature and humidity monitoring that provides an alarm or notification of changes potentially harmful to personnel or equipment.	DC		X		
429.	Water Damage Protection	PE-15(A)	The Contractor protects the information system from damage resulting from water leakage by providing master shutoff or isolation valves that are accessible, working	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PHYSICAL and ENVIRONMENTAL PROTECTION (PE)</b>								
			properly, and known to key personnel.					
430.	Delivery and Removal	PE-16(A)	The organization authorizes, monitors, and controls information system components entering and exiting the facility and maintains records of those items.	DC		X		
431.	Alternate Work Site	PE-17(A)	The Contractor employs commensurate level of security controls at alternate work sites.	Org		X		
432.		PE-17(C)	The Contractor provides a means for employees to communicate with information security personnel in case of security incidents or problems.	Org		X		
433.	Location of Information System Components	PE-18(A)	The Contractor positions information system components within the facility to minimize potential damage from physical and environmental hazards and to minimize the opportunity for unauthorized access.	Org		X		
434.		PE-18(1)	The Contractor plans the location or site of the facility where the information system resides with regard to physical and environmental hazards and for existing facilities, considers the physical and environmental hazards in its risk mitigation strategy.	Org		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PLANNING (PL)</b>								
435.	Security Planning Policy and Procedures	PL-1(A)	The Contractor develops, documents, and disseminates to:  (a) A security planning policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and  (b) Procedures to facilitate the implementation of the security planning policy and associated security planning controls.	Org		X		
436.		PL-1(B)	The Contractor reviews and updates the current:  (a) Security planning policy annually; and  (b) Security planning procedures annually.  The review process is documented in the Planning Policy and Procedures.	Org		X		
437.	System Security Plan	PL-2(A)	The Contractor and EC develop a security plan for the information system that:  (a) Is consistent with the Contractor and EC's enterprise architecture;  (b) Explicitly defines the authorization boundary for the	Org	X			

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PLANNING (PL)</b>								
			system;  (c) Describes the operational context of the information system in terms of missions and business processes;  (d) Provides the security categorization of the information system including supporting rationale;  (e) Describes the operational environment for the information system and relationships with or connections to other information systems;  (f) Provides an overview of the security requirements for the system;  (g) Identifies any relevant overlays, if applicable;  (h) Describes the security controls in place or planned for meeting those requirements including a rationale for tailoring decisions; and  (i) Is reviewed and approved by the authorizing official or designated representative prior to plan implementation.					
438.		PL-2(B)	The Contractor and EC distribute copies of the security plan and communicate subsequent changes to the plan to appropriate Contractor and EC personnel.	Org	X			

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PLANNING (PL)</b>								
439.		PL-2(C)	The Contractor and EC review the security plan for the information system annually.	Org	X			
440.		PL-2(D)	The Contractor and EC update the plan to address changes to the information system/environment of operation or problems identified during plan implementation or security control assessments.	Org	X			
441.		PL-2(E)	The Contractor and EC protect the security plan from unauthorized disclosure and modification.	Org	X			
442.	Rules of Behaviour	PL-4(A)	The Contractor establishes and makes readily available to individuals requiring access to the information system the rules that describe their responsibilities and expected behaviour with regard to information and information system usage.	Org		X		
443.		PL-4(B)	The Contractor receives a signed acknowledgment from such individuals, indicating that they have read, understood, and agreed to abide by the rules of behaviour, before authorizing access to information and the information system.	Org		X		
444.		PL-4(C)	The Contractor reviews and updates the rules of behaviour annually.	Org		X		
445.		PL-4(D)	The Contractor requires individuals who have signed a previous version of the rules of behaviour to read and resign	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PLANNING (PL)</b>								
			when the rules of behaviour are revised.					
446.		PL-4(1)	The Contractor includes in the rules of behaviour, explicit restrictions on the use of social media/networking sites and posting organizational or EC information on public websites	Org		X		
447.	Security Concept of Operations	PL-7(A)	The Contractor develops a security Concept of Operations (CONOPS) for the information system containing at a minimum, how the organization intends to operate the system from the perspective of information security.	Org		X		
448.		PL-7(B)	The Contractor Reviews and updates the CONOPS annually and following any major system change.	Org		X		
449.	Information Security Architecture	PL-8(A)	The Contractor develops an information security architecture for the information system that: <ul style="list-style-type: none"> <li>(a) Describes the overall philosophy, requirements, and approach to be taken with regard to protecting the confidentiality, integrity, and availability of organizational and EC information;</li> <li>(b) Describes how the information security architecture is integrated into and supports the enterprise architecture; and</li> <li>(c) Describes any information security assumptions</li> </ul>	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PLANNING (PL)</b>								
			about and dependencies on, external services.					
450.		PL-8(B)	The Contractor reviews and updates the information security architecture annually to reflect updates in the enterprise architecture.	Org		X		
451.		PL-8(C)	The organization ensures that planned information security architecture changes are reflected in the security plan, the security Concept of Operations (CONOPS), and organizational procurements/ acquisitions.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PERSONNEL SECURITY (PS)</b>								
452.	Personnel Security Policy and Procedures	PS-1(A)	The Contractor develops, documents, and disseminates:  (a) A personnel security policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and  (b) Procedures to facilitate the implementation of the personnel security policy and associated	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PERSONNEL SECURITY (PS)</b>								
			personnel security controls.  All policies must contain a level of detail/coverage consistent with EC and GC policy.					
453.		PS-1(B)	The Contractor reviews and updates the current:  (a) Personnel security policy annually; and  (b) Personnel security procedures annually.  The review process is documented in the Personnel Security Policy and Procedures.	Org		X		
454.	Personnel Screening	PS-3(A)	All Contractor employees with access to protected information or systems that will process protected information hold a valid <b>Reliability Status</b> prior to authorizing access to the information system, and for the duration of their access, in accordance with the TBS <i>Standard on Security Screening</i> . Contractor employees with privileged access (such as root admins) must hold a <b>Secret</b> Clearance prior to authorizing access to the information system, and for the duration of their access.	Org		X		
455.	Personnel Termination	PS-4(A)	The Contractor, upon termination of individual employment, disables information system access within 24 hours.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PERSONNEL SECURITY (PS)</b>								
456.		PS-4(B)	The Contractor, upon termination of individual employment, terminates/ revokes any authenticators/credentials associated with the individual.	Org		X		
457.		PS-4(C)	The Contractor, upon termination of individual employment, conducts exit interviews that include a discussion of Confidentiality.	Org		X		
458.		PS-4(D)	The Contractor, upon termination of individual employment, retrieves all security-related organizational information system-related property.	Org		X		
459.		PS-4(E)	The Contractor, upon termination of individual employment, retains access to organizational information and information systems formerly controlled by the terminated individual.	Org		X		
460.	Third Party Personnel Security	PS-7(A)	The Contractor must communicate personnel security control requirements, including security roles and responsibilities, to 3 <sup>rd</sup> parties as per the EC requirements for the Contractor.	Org		X		
461.		PS-7(B)	The Contractor requires third-party providers to comply with personnel security control policies and procedures established by EC.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PERSONNEL SECURITY (PS)</b>								
462.		PS-7(D)	The Contractor requires third-party providers to notify the Contractor and the EC technical authority of any personnel transfers or terminations of third-party personnel who possess Contractor organization credentials and/or badges, or who have information system privileges within 24 hours.	Org		X		
463.		PS-7(E)	The Contractor monitors provider compliance.	Org		X		
464.		PS-7(AA)	The Contractor ensures third-party personnel with access to the information system or EC data meet the security screening requirements in PS-3(A).	Org		X		
465.		PS-7(BB)	The Contractor explicitly defines oversight and end-user roles and responsibilities relative to third-party provided services in accordance with the <i>TBS Security and Contracting Management Standard</i> .	Org		X		
466.	Personnel Sanctions	PS-8(A)	The Contractor employs a formal sanctions process for individuals failing to comply with established information security policies and procedures.	Org		X		
467.		PS-8(B)	The Contractor notifies the EC Technical Authority within 24 hours when a formal employee sanctions process is initiated against any individual who has/had access to Protected information and assets, identifying the individual sanctioned	Org		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>PERSONNEL SECURITY (PS)</b>								
			and the reason for the sanction.					

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>RISK ASSESSMENT (RA)</b>								
468.	Vulnerability Scanning	RA-5(A)	The Contractor scans for vulnerabilities in the information system and hosted applications randomly in accordance with organization-defined process and when new vulnerabilities potentially affecting the system/applications are identified and reported. EC must have the option to participate in the Contractor's VA process and the Contractor must facilitate 3 <sup>rd</sup> party vulnerability scanning by independent and impartial assessors selected by EC.	Org		X		
469.		RA-5(B)	The Contractor employs vulnerability scanning tools and techniques that facilitate interoperability among tools and automate parts of the vulnerability management process by using standards for:  (a) Enumerating platforms, software flaws, and improper configurations;	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>RISK ASSESSMENT (RA)</b>								
			(b) Formatting checklists and test procedures; and  (c) Measuring vulnerability impact.					
470.		RA-5(C)	The Contractor analyzes vulnerability scan reports and results from security control assessments.	Org		X		
471.		RA-5(D)	The Contractor remediates legitimate vulnerabilities in accordance with an organizational assessment of risk.	Org		X		
472.		RA-5(E)	The Contractor shares information obtained from the vulnerability scanning process and security control assessments with the EC IT Security Coordinator to help eliminate similar vulnerabilities in other information systems (i.e., systemic weaknesses or deficiencies).	Org		X		
473.		RA-5(1)	The Contractor employs vulnerability scanning tools that include the capability to readily update the information system vulnerabilities to be scanned.	Org		X		
474.		RA-5(2)	The Contractor updates the information system vulnerabilities scanned prior to a new scan and when new vulnerabilities are identified and reported.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility	Appl.	Evidence
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					Shared	Contractor	(Y/NA)	
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
475.	System and Services Acquisition Policy and Procedures	SA-1(A)	<p>The Contractor develops, documents, and disseminates:</p> <p>(a) A system and services acquisition policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and</p> <p>(b) Procedures to facilitate the implementation of the system and services acquisition policy and associated system and services acquisition controls.</p> <p>All policies must contain a level of detail/coverage consistent with EC and GC policy.</p>	Org		X		
476.		SA-1(B)	<p>The Contractor reviews and updates the current:</p> <p>(a) System and services acquisition policy annually.</p> <p>(b) System and services acquisition procedures annually.</p> <p>The review process is documented in the System and Services Acquisition Policy and Procedures.</p>	Org		X		
477.	Allocation of Resources	SA-2(B)	<p>The Contractor determines, documents, and allocates the resources required to protect the information system or information system service as part of its capital planning and investment control process.</p>	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
478.		SA-2(C)	The Contractor establishes a discrete line item for information security in organizational programming and budgeting documentation.	Org		X		
479.	System Development Life Cycle (SDLC)	SA-3(A)	The Contractor manages the information system using a defined SDLC that incorporates information security considerations.	Org		X		
480.		SA-3(B)	The Contractor defines and documents information security roles and responsibilities throughout the SDLC.	Org		X		
481.		SA-3(C)	The Contractor identifies individuals having information security roles and responsibilities.	Org		X		
482.		SA-3(D)	The Contractor integrates the organizational information security risk management process into SDLC.	Org		X		
483.	Acquisition Process	SA-4(A, SG)	The Contractor includes the following requirements, descriptions, and criteria, explicitly or by reference, in the acquisition contract for system components or services:  (a) Security functional requirements;  (b) Security strength requirements;  (c) Security assurance requirements;	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
			(d) Security-related documentation requirements;  (e) Requirements for protecting security-related documentation;  (f) Description of the information system development environment and environment in which the system is intended to operate; and  (g) Acceptance criteria.  Supplemental Guidance: <b>Security strength</b> requirements associated with such capabilities, functions, and mechanisms include degree of correctness, completeness, resistance to direct attack, and resistance to tampering or bypass. <b>Security assurance</b> requirements include: (i) development processes, procedures, practices, and methodologies; and (ii) evidence from development and assessment activities providing grounds for confidence that the required security functionality has been implemented and the required security strength has been achieved.					
484.		SA-4(1)	The Contractor is required to provide a description of the functional properties of the security controls to be	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
			employed.					
485.		SA-4(5)	The Contractor is required to: <ul style="list-style-type: none"> <li>(a) Deliver the system, component, or service with security configurations implemented; and</li> <li>(b) Use the configurations as the default for any subsequent component or service reinstallation or upgrade.</li> </ul>	Org		X		
486.	Information System Documentation	SA-5(A)	The Contractor is required to provide administrator documentation for the system components or services that describes: <ul style="list-style-type: none"> <li>(a) Secure configuration, installation, and operation of the component or service;</li> <li>(b) Effective use and maintenance of security functions/mechanisms; and</li> <li>(c) Known vulnerabilities regarding configuration and use of administrative (i.e., privileged) functions.</li> </ul>	Org		X		
487.		SA-5(B)	The Contractor is required to provide user documentation for the system components or services that describes: <ul style="list-style-type: none"> <li>(a) User-accessible security functions/mechanisms</li> </ul>	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
			and how to effectively use those security functions/mechanisms;  (b) Methods for user interaction, which enables individuals to use the component or service in a more secure manner; and  (c) User responsibilities in maintaining the security of the system, component, or service.					
488.		SA-5(C)	The Contractor documents their attempts to obtain system component or service documentation when such documentation is either unavailable or nonexistent.	Org		X		
489.		SA-5(D)	The Contractor protects documentation as required, in accordance with GC risk management strategy.	Org		X		
490.		SA-5(E)	The Contractor distributes documentation to personnel with a defined operational need.	Org		X		
491.	External Information System Services	SA-9(A)	The Contractor requires that providers of external information system services comply with organizational information security control requirements and employ the security controls as defined in this SCP.	Org		X		
492.		SA-9(B)	The Contractor defines and documents oversight and user roles and responsibilities with regard to external information	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
			system services.					
493.		SA-9(C)	The Contractor monitors security control compliance by external service providers on an ongoing basis.	Org		X		
494.		SA-9(1)	(a) The Contractor conducts an organizational assessment of risk prior to the acquisition or outsourcing of dedicated information security services; and  (b) The Contractor ensures that the acquisition or outsourcing of dedicated information security services is approved by the EC IT Security Coordinator.	Org		X		
495.		SA-9(2)	The Contractor is required to identify the functions, ports, protocols, and other services required for the use external information system services.	Org		X		
496.		SA-9(4)	The Contractor employs security safeguards to ensure that the interests of external service providers are consistent with and reflect EC interests.	Org	X			
497.		SA-9(5)	The Contractor restricts the location of: information processing; information/data; and information system services to <b>Canada</b> .	DC/Field	X			
498.	Developer Configuration	SA-10(A)	The Contractor is required to perform configuration management during design; development; implementation;	Org		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
	Management		and operation.					
499.		SA-10(B)	The Contractor is required to document, manage, and control the integrity of changes to all items under configuration management as defined in the Configuration Management (CM) family controls in this document.	Org		X		
500.		SA-10(C)	The Contractor is required to implement only EC approved changes to the components or services.	Org		X		
501.		SA-10(D)	The Contractor is required to document approved changes to components or services and the potential security impacts of such changes.	Org		X		
502.		SA-10(E)	The Contractor is required to track security flaws and flaw resolution within the components or services and report findings to the EC IT Security Coordinator.	Org		X		
503.		SA-10(1)	The Contractor is required to enable integrity verification of software and firmware components.	Org		X		
504.	Developer Security Testing	SA-11(A)	The Contractor is required to create and implement a security assessment plan.	Org		X		
505.		SA-11(B)	The Contractor is required to perform: unit; integration; system; and/or regression testing and evaluation at when feasible. The results of the testing must be shared with the	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
			EC IT Security Coordinator and EC must have the option to participate in the testing process.					
506.		SA-11(C)	The Contractor is required to produce evidence of the execution of the security assessment plan and the results of the security testing/evaluation.	Org		X		
507.		SA-11(D)	The Contractor is required to implement a verifiable flaw remediation process.	Org		X		
508.		SA-11(E)	The Contractor is required to correct flaws identified during security testing/evaluation.	Org		X		
509.		SA-11(1)	The Contractor is required to perform threat and vulnerability analyses and subsequent testing/evaluation of the as-built system, component, or service.	Org		X		
510.		SA-11(2)	The Contractor is required to perform threat and vulnerability analyses and subsequent testing/evaluation of the components or services.	Org		X		
511.		SA-11(4)	The Contractor is required to perform a manual code review of critical components.	Org		X		
512.		SA-11(5)	The Contractor is required to perform black box penetration testing. The results of the testing must be shared with the EC IT Security Coordinator and EC must have the option to	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
			participate in the testing process.					
513.		SA-11(7)	The Contractor is required to verify that the scope of security testing/evaluation by developers of system components or services provides complete coverage of required security controls.	Org		X		
514.		SA-11(8)	The Contractor is required to employ dynamic code analysis tools to identify common flaws and document the results of the analysis. The results of the analysis must be shared with the EC IT Security Coordinator.	Org		X		
515.		SA-12(A)	The Contractor protects against supply chain threats to the information system or system components by employing tamper-evident packaging during shipping and warehousing as part of a comprehensive, defence-in-breadth information security strategy.	Org		X		
516.	Development Process, Standards and Tool	SA-15(A)	The Contractor is required to follow a documented development process that: <ul style="list-style-type: none"> <li>(a) Explicitly addresses security requirements;</li> <li>(b) Identifies the standards and tools used in the development process;</li> <li>(c) Documents the specific tool options and tool</li> </ul>	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
			configurations used in the development process; and (d) Documents, manages, and ensures the integrity of changes to the process and/or tools used in development.					
517.		SA-15(B)	The Contractor reviews the development process, standards, tools, and tool options/configurations annually and prior to any major development work to determine if the process, standards, tools, and tool options/configurations selected and employed can satisfy security requirements.	Org		X		
518.		SA-15(1)	(a) The Contractor is required to define quality metrics at the beginning of the development process; and (b) The Contractor is required to, or requires the developer of the information system, system components or information system services, to provide evidence of meeting the quality metrics annually and prior to any major development work. The evidence/assessment of the quality must be shared with the EC Technical Authority.	Org		X		
519.		SA-15(2)	The Contractor is required to select and employ a security tracking tool for use during the development process.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
520.		SA-15(4)	The Contractor is required to perform threat modeling and a vulnerability analysis for the information system.	Org		X		
521.		SA-15(5)	The Contractor is required to reduce attack surfaces.	Org		X		
522.		SA-15(6)	The Contractor is required to implement an explicit process to continuously improve the development process.	Org		X		
523.		SA-15(7)	The Contractor is required to: <ul style="list-style-type: none"> <li>(a) Perform an automated vulnerability analysis;</li> <li>(b) Determine the exploitation potential for discovered vulnerabilities;</li> <li>(c) Determine potential risk mitigations for delivered vulnerabilities; and</li> <li>(d) Deliver the outputs of the tools and results of the analysis to the TC Technical Authority.</li> </ul>	Org		X		
524.		SA-15(8)	The Contractor is required to use threat modeling and vulnerability analyses <b>from similar systems</b> , components, or services to inform the current development process.	Org		X		
525.		SA-15(9)	EC approves, documents, and controls the use of live data in development and test environments for the information	Org	X			

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
			system, system component, or information system service.					
526.		SA-15(10)	EC requires the Contractor to provide an incident response plan.	Org		X		
527.		SA-15(11)	The Contractor is required to archive the system or components to be released or delivered together with the corresponding evidence supporting the final security review.	Org		X		
528.	Developer Provided Training	SA-16(A)	The Contractor is required to provide developers with training on the correct use and operation of the implemented security functions, controls, and/or mechanisms.	Org		X		
529.	Developer Security Architecture and Design	SA-17(A)	The Contractor is required to produce a design specification and security architecture that is consistent with and supportive of the organization’s security architecture which is established within and is an integrated part of the organization’s enterprise architecture.	DC/Field		X		
530.		SA-17(B)	The Contractor is required to produce a design specification and security architecture that accurately and completely describes the required security functionality, and the allocation of security controls among physical and logical components.	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
531.		SA-17(C)	The Contractor is required to produce a design specification and security architecture that expresses how individual security functions, mechanisms, and services work together to provide required security capabilities and a unified approach to protection.	DC/Field		X		
532.		SA-17(2)	The Contractor is required to:  (a) Define security-relevant hardware, software, and firmware; and  (b) Provide a rationale that the definition for security-relevant hardware, software, and firmware is complete.	Org		X		
533.		SA-17(3, SG)	The Contractor is required to:  (a) Produce, as an integral part of the development process, a <b>formal</b> top-level specification that specifies the interfaces to security-relevant hardware, software, and firmware in terms of exceptions, error messages, and effects;  (b) Show via proof to the extent feasible with additional informal demonstration as necessary, that the formal top-level specification is consistent with the formal policy model;  (c) Show via informal demonstration, that the formal top-	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
			level specification completely covers the interfaces to security-relevant hardware, software, and firmware;  (d) Show that the formal top-level specification is an accurate description of the implemented security-relevant hardware, software, and firmware; and  (e) Describe the security-relevant hardware, software, and firmware mechanisms not addressed in the formal top-level specification but strictly internal to the security-relevant hardware, software, and firmware.					
534.		SA-17(4)	The Contractor is required to:  (a) Produce, as an integral part of the development process, an <b>informal</b> descriptive top-level specification that specifies the interfaces to security-relevant hardware, software, and firmware in terms of exceptions, error messages, and effects;  (b) Show via informal demonstration that the descriptive top-level specification is consistent with the formal policy model;  (c) Show via informal demonstration, that the descriptive top-level specification completely covers the interfaces to	Org		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
			security-relevant hardware, software, and firmware;  (d) Show that the descriptive top-level specification is an accurate description of the interfaces to security-relevant hardware, software, and firmware; and  (e) Describe the security-relevant hardware, software, and firmware mechanisms not addressed in the descriptive top-level specification but strictly internal to the security-relevant hardware, software, and firmware.					
535.		SA-17(3/4, SG)	Supplemental Guidance: the difference between SA-17(3) and SA-17(4) is <b>formal</b> vs. <b>informal</b> specifications. Consistency between the descriptive top-level specification (i.e. high-level/low-level design) and the formal policy model is generally not amenable to being fully proven). Therefore, a combination of formal and informal methods may be needed to show such consistency.  Correspondence is therefore an important part of the assurance gained through modeling as it may demonstrate that the implementation is an accurate transformation of the model and that any additional code or implementation details present no impact on the behaviours or policies being	-	-	-	-	-

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and SERVICES ACQUISITION (SA)</b>								
			modeled.					
536.	Tamper Resistance and Detection	SA-18(A)	The Contractor implements a tamper protection program for E-Poll Devices.	Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and COMMUNICATION PROTECTION (SC)</b>								
537.	System and Communication Protection Policy and Procedures	SC-1(A)	<p>The Contractor develops, documents, and disseminates:</p> <p>(a) A system and communications protection policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and</p> <p>(b) Procedures to facilitate the implementation of the system and communications protection policy and associated system and communications protection controls.</p> <p>All policies must contain a level of detail/coverage consistent</p>	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and COMMUNICATION PROTECTION (SC)</b>								
			with EC and GC policy.					
538.		SC-1(B)	The Contractor reviews and updates the current: <ul style="list-style-type: none"> <li>(a) System and communications protection policy annually; and</li> <li>(b) System and communications protection procedures annually and prior to any major change or system development.</li> </ul> The review process is documented in the System and Communication Protection Policy and Procedures.	Org		X		
539.	Application Partitioning	SC-2(A)	The information system separates user functionality (including user interface services) from information system management functionality.	DC/Field		X		
540.		SC-2(1)	The information system prevents the presentation of information system management-related functionality at an interface for non-privileged users.	DC/Field		X		
541.	Denial of Service Protection	SC-5(A)	The information system protects against or limits the effects of denial of service attacks (volume based attacks, protocol attacks and Application layer attacks).	DC/Field		X		
542.		SC-5(2)	The information system manages excess capacity,	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and COMMUNICATION PROTECTION (SC)</b>								
			bandwidth, or other redundancy to limit the effects of information flooding denial of service attacks.					
543.		SC-5(3)	(a) The Contractor employs monitoring tools to detect indicators of denial of service attacks against the information system; and  (b) The Contractor monitors information system resources (memory, CPU cycles, etc.) to determine if sufficient resources exist to prevent effective denial of service attacks.	DC		X		
544.	Boundary Protection	SC-7(A)	The information system monitors and controls communications at the external boundary of the system and at key internal boundaries within the system.	DC/Field		X		
545.		SC-7(C)	The information system connects to external networks or information systems only through managed interfaces consisting of boundary protection devices arranged in accordance with an organizational security architecture.	DC/Field		X		
546.		SC-7(3)	The Contractor limits the number of external network connections to the information system.	DC/Field		X		
547.		SC-7(4)	(a) The Contractor implements a managed interface for each external telecommunication service;  (b) The Contractor establishes a traffic flow policy for each	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and COMMUNICATION PROTECTION (SC)</b>								
			managed interface;  (c) The Contractor protects the confidentiality and integrity of the information being transmitted across each interface;  (d) The Contractor documents each exception to the traffic flow policy with a supporting mission/business need and duration of that need; and  (e) The Contractor reviews exceptions to the traffic flow policy annually and removes exceptions that are no longer supported by an explicit mission/business need.					
548.		SC-7(5)	At managed interfaces the information system denies network communications traffic by default and allows network communications traffic by exception (i.e., deny all, permit by exception).	DC/Field		X		
549.		SC-7(7)	The information system, in conjunction with a remote device, prevents the device from simultaneously establishing non-remote connections with the system and communicating via some other connection to resources in external networks.	DC/Field		X		
550.		SC-7(8)	The information system routes internal communications traffic to external networks through authenticated proxy	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and COMMUNICATION PROTECTION (SC)</b>								
			servers at managed interfaces.					
551.		SC-7(9)	(a) The information system detects and denies outgoing communications traffic posing a threat to external information systems (extrusion detection); and  (b) The information system audits the identity of internal users associated with denied communications.	DC/Field		X		
552.		SC-7(11)	The information system only allows incoming communications from authorized sources routed to authorized destinations.	DC/Field		X		
553.		SC-7(12)	The Contractor implements host-based boundary protection mechanisms.	DC/Field		X		
554.		SC-7(13)	The Contractor isolates security tools, mechanisms, and support components from other internal information system components by implementing physically separate sub-networks (such as a dedicated management zone) with managed interfaces to other components of the system.	DC		X		
555.		SC-7(18)	The information system fails securely in the event of an operational failure of a boundary protection device.	DC/Field		X		
556.	Transmission Confidentiality	SC-8(1)	The information system implements cryptographic mechanisms to: prevent unauthorized disclosure of	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and COMMUNICATION PROTECTION (SC)</b>								
	and Integrity		information and detect changes to information during transmission. The cryptography must be compliant with the requirements of control SC-13.					
557.	Network Disconnect	SC-10(A)	The information system terminates the network connection associated with a communications session at the end of the session or after 30 minutes of inactivity.	DC		X		
558.	Cryptographic Key Establishment and Management	SC-12(A, SG)	<p>The Contractor establishes and manages cryptographic keys for required cryptography employed within the information system in accordance with Government of Canada requirements for key generation, distribution, storage, access, and destruction.</p> <p>Supplemental Guidance: Cryptographic key management and establishment can be performed using manual procedures or automated mechanisms with supporting manual procedures. The Contractor should manage trust stores to ensure that only approved trust anchors are in such trust stores. This includes certificates with visibility external to organizational information systems and certificates related to the internal operations of systems. <b>The cryptography must be compliant with the requirements of control SC-13.</b></p>	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and COMMUNICATION PROTECTION (SC)</b>								
559.		SC-12(1)	The Contractor maintains availability of information in the event of the loss of cryptographic keys by users.	DC		X		
560.	Cryptographic Protection	SC-13	<p>The information system implements cryptography in accordance with applicable GC legislation and TBS policies, directives and standards. Generally applicable cryptographic standards include FIPS-validated cryptography and CSE-approved cryptography.</p> <p>These include, but are not limited to: CSE ITSA-11 <i>Approved Cryptographic Algorithms for the Protection of Protected Information</i>; CSE ITSG-31 <i>User Authentication for IT Systems</i>; and NIST FIPS PUB 140-2 <i>Security Requirements for Cryptographic Modules</i>.</p>	DC/Field		X		
561.	Collaborative Computing Devices	SC-15(A)	The information system prohibits remote activation of collaborative computing devices.	DC/Field		X		
562.		SC-15(3)	The Contractor disables or removes unnecessary collaborative computing devices from information systems or information system components.	DC/Field		X		
563.	Public Key Infrastructure	SC-17(A)	The Contractor issues public key certificates under a defined certificate policy or obtains public key certificates from an	Org		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and COMMUNICATION PROTECTION (SC)</b>								
	(PKI) Certificates		approved service provider.					
564.	Mobile Code	SC-18(A)	The Contractor defines acceptable and unacceptable mobile code and mobile code technologies.	Org		X		
565.		SC-18(B)	The Contractor establishes usage restrictions and implementation guidance for acceptable mobile code and mobile code technologies.	Org		X		
566.		SC-18(C)	The Contractor authorizes, monitors, and controls the use of mobile code within the information system.	DC/Field		X		
567.		SC-18(1)	The information system identifies <b>unacceptable</b> mobile code, quarantines unacceptable mobile code and notifies the system administrator.	DC/Field		X		
568.		SC-18(3)	The information system prevents the download and execution of unacceptable mobile code.	DC/Field		X		
569.		SC-18(4)	The information system prevents the automatic execution of mobile code.	DC/Field		X		
570.	Voice Over Internet Protocol (VoIP)	SC-19(A)	The Contractor establishes usage restrictions and implementation guidance for VoIP technologies based on the potential to cause damage to the information system if used maliciously.	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and COMMUNICATION PROTECTION (SC)</b>								
571.		SC-19(B)	The Contractor authorizes, monitors, and controls the use of VoIP within the information system.	DC/Field		X		
572.	Architecture and Provisioning for Name / Address Resolution Service	SC-22(A, SG)	<p>The information systems that collectively provide name/address resolution service for the Contractor (such as Domain Name System (DNS) Servers) are fault-tolerant and implement internal/external role separation.</p> <p>Supplemental Guidance: To eliminate single points of failure and to enhance redundancy, the Contractor should employ at least two authoritative domain name system servers, one configured as the primary server and the other configured as the secondary server. Additionally, the servers should be deployed in two geographically separated network sub-networks (i.e., not located in the same physical facility). For role separation, DNS servers with internal roles only process name and address resolution requests from within organizations (i.e., from internal clients). DNS servers with external roles only process name and address resolution information requests from clients external to organizations (i.e., on external networks including the Internet). The Contractor must specify clients that can access authoritative DNS servers in particular roles (e.g., by address ranges,</p>	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and COMMUNICATION PROTECTION (SC)</b>								
			explicit lists).					
573.	Session Authenticity	SC-23(A, DG)	<p>The information system protects the authenticity of communications sessions.</p> <p>Supplemental Guidance: This control addresses communications protection at the session, versus packet level (e.g., sessions in service-oriented architectures providing web-based services) and establishes grounds for confidence at both ends of communications sessions in ongoing identities of other parties and in the validity of information transmitted. Authenticity protection includes, for example, protecting against man-in-the-middle attacks/session hijacking and the insertion of false information into sessions.</p>	DC/Field		X		
574.		SC-23(1)	The information system invalidates session identifiers upon user logout or other session termination.	DC/Field		X		
575.		SC-23(3, SG)	The information system generates a <b>unique, random</b> session identifier for each session with and recognizes only session identifiers that are system-generated.	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and COMMUNICATION PROTECTION (SC)</b>								
			This control enhancement curtails the ability of adversaries from reusing previously valid session IDs. Employing the concept of randomness in the generation of unique session identifiers helps to protect against brute-force attacks to determine future session identifiers.					
576.	Fail in Known State	SC-24(A)	<p>The information system fails to a known state preserving system state information in failure.</p> <p>When a system fails, it should do so securely. This typically involves several things: secure defaults (default is to deny access); on failure undo changes and restore to a secure state; always check return values for failure; and in conditional code/filters make sure that there is a default case that does the right thing. The confidentiality and integrity of a system should remain even though availability has been lost. Attackers must not be permitted to gain access rights to privileged objects during a failure that are normally inaccessible. Upon failing, a system that reveals sensitive information about the failure to potential attackers could supply additional knowledge for creating an attack. Determine what may occur when a system fails and be sure it does not threaten the system.</p>	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and COMMUNICATION PROTECTION (SC)</b>								
577.	Protection of Information at Rest	SC-28(A, SG)	<p>The information system protects the: confidentiality and integrity of information at rest.</p> <p>Supplemental Guidance: This control addresses the confidentiality and integrity of information at rest and covers <b>user information</b> and <b>system information</b>. Information at rest refers to the state of information when it is located on storage devices as specific components of information systems. System-related information requiring protection includes, for example, configurations or rule sets for firewalls, gateways, intrusion detection/prevention systems, filtering routers, and authenticator content. Organizations may employ different mechanisms to achieve confidentiality and integrity protections, including the use of cryptographic mechanisms and file share scanning. Integrity protection can be achieved, for example, by implementing Write-Once-Read-Many (WORM) technologies.</p>	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		

SYSTEM and INFORMATION INTEGRITY (SI)								
578.	System and Information Integrity Policy and Procedures	SI-1(A)	<p>The Contractor develops, documents, and disseminates:</p> <p>(a) A system and information integrity policy that addresses purpose, scope, roles, responsibilities, management commitment, coordination among organizational entities, and compliance; and</p> <p>(b) Procedures to facilitate the implementation of the system and information integrity policy and associated system and information integrity controls.</p> <p>All policies must contain a level of detail/coverage consistent with EC and GC policy.</p>	Org		X		
579.		SI-1(B)	<p>The Contractor reviews and updates the current:</p> <p>(a) System and information integrity policy annually; and</p> <p>(b) System and information integrity procedures annually.</p> <p>The review process is documented in the System and Information Integrity Policy and Procedures.</p>	Org		X		
580.	Flaw Remediation	SI-2(A)	The Contractor identifies, reports, and corrects information system flaws.	DC/Field		X		
581.		SI-2(B)	The Contractor tests software and firmware updates related to flaw remediation for effectiveness and potential side	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and INFORMATION INTEGRITY (SI)</b>								
			effects before installation.					
582.		SI-2(D)	The organization incorporates flaw remediation into the organizational configuration management process.	Org		X		
583.	Malicious Code Protection	SI-3(A)	The Contractor employs malicious code protection mechanisms at information system entry and exit points to detect and eradicate malicious code.	DC/Field		X		
584.		SI-3(B)	The Contractor updates malicious code protection mechanisms whenever new releases are available in accordance with organizational configuration management policy and procedures.	DC/Field		X		
585.		SI-3(C)	The Contractor configures malicious code protection mechanisms to: <ul style="list-style-type: none"> <li>(a) Perform periodic scans of the information system daily and real-time scans of files from external sources at as the files are downloaded, opened, or executed in accordance with organizational security policy; and</li> <li>(b) Quarantine malicious code and send alert to the system administrator in response to malicious code detection.</li> </ul>	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and INFORMATION INTEGRITY (SI)</b>								
586.		SI-3(D)	The Contractor addresses the receipt of false positives during malicious code detection and eradication and the resulting potential impact on the availability of the information system.	DC/Field		X		
587.		SI-3(1)	The organization centrally manages malicious code protection mechanisms.	DC/Field		X		
588.		SI-3(4)	The information system updates malicious code protection mechanisms only when directed by a privileged user.	DC/Field		X		
589.		SI-3(7, SG)	<p>The information system <b>implements non-signature-based</b> malicious code detection mechanisms.</p> <p>Supplemental Guidance: Non-signature-based detection mechanisms include, for example, the use of heuristics to detect, analyze, and describe the characteristics or behaviour of malicious code and to provide safeguards against malicious code for which signatures do not yet exist or for which existing signatures may not be effective. This includes polymorphic malicious code (i.e., code that changes signatures when it replicates). This control enhancement does not preclude the use of signature-based detection mechanisms.</p>	DC/Field		X		



#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and INFORMATION INTEGRITY (SI)</b>								
590.	Information System Monitoring	SI-4(A)	The Contractor monitors the information system to detect:  (a) Attacks and indicators of potential; and  (b) Unauthorized local, network, and remote connections.	Org		X		
591.		SI-4(B)	The Contractor identifies unauthorized use of the information system.	Org		X		
592.		SI-4(C)	The Contractor deploys monitoring devices:  (i) strategically within the information system to collect organization-determined essential information; and  (ii) at <i>ad hoc</i> locations within the system to track specific types of transactions of interest to the organization.	DC/Field		X		
593.		SI-4(D)	The Contractor protects information obtained from intrusion-monitoring tools from unauthorized access, modification, and deletion.	DC/Field		X		
594.		SI-4(E)	The Contractor heightens the level of information system monitoring activity whenever there is an indication of increased risk to organizational (Contractor or EC) operations and assets, individuals, other organizations, or	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and INFORMATION INTEGRITY (SI)</b>								
			Canada; based on law enforcement information, intelligence information, or other credible sources of information.					
595.		SI-4(G)	The Contractor provides information system monitoring information to the EC IT Security Coordinator post event and as needed.	Org		X		
596.		SI-4(2)	The Contractor employs automated tools to support near real-time analysis of events.	DC		X		
597.		SI-4(4)	The information system monitors inbound and outbound communications traffic for unusual or unauthorized activities or conditions.	DC/Field		X		
598.		SI-4(5)	The information system alerts Contractor personnel when the following indications of compromise or potential compromise occur: alerts from the information system's malicious code protection mechanisms, intrusion detection or prevention mechanisms, or boundary protection devices are triggered.	DC		X		
599.		SI-4(7)	The information system notifies Contractor incident response personnel of detected suspicious events.	DC		X		
600.		SI-4(9)	The Contractor tests intrusion-monitoring tools to ensure that the tools are operating correctly and continue to meet the monitoring objectives of the Contractor. The frequency	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and INFORMATION INTEGRITY (SI)</b>								
			of testing depends on the types of tools used by the Contractor and the methods of deployment.					
601.		SI-4(10)	The Contractor makes provisions so that encrypted communications traffic is visible to information system monitoring tools.	DC/Field		X		
602.		SI-4(11)	The Contractor analyzes outbound communications traffic at the external boundary of the information system and selected interior points within the system (e.g., sub-networks, subsystems)] to discover anomalies.	DC		X		
603.		SI-4(12)	The Contractor employs automated mechanisms to alert security personnel of the inappropriate or unusual activities with security implications.	DC		X		
604.		SI-4(13)	(a) The Contractor analyzes communications traffic/event patterns for the information system;  (b) The Contractor develops profiles representing common traffic patterns and/or events; and  (c) The Contractor uses the traffic/event profiles in tuning system-monitoring devices to reduce the number of false positives and the number of false negatives.	DC		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and INFORMATION INTEGRITY (SI)</b>								
605.		SI-4(14)	The Contractor employs a wireless intrusion detection system to identify rogue wireless devices and to detect attack attempts and potential compromises/ breaches to the information system.	DC		X		
606.		SI-4(15)	The Contractor employs an intrusion detection system to monitor wireless communications traffic as the traffic passes from wireless to wireline networks.	DC/Field		X		
607.	Security Alerts, Advisories and Directives	SI-5(A)	The Contractor receives information system security alerts, advisories, and directives from, at a minimum, Public Safety Canada (PSC), the Communications Security Establishment (CSE) and the Royal Canadian Mounted Police (RCMP) on an ongoing basis.	Org		X		
608.		SI-5(B)	The Contractor generates internal security alerts, advisories, and directives as deemed necessary.	Org		X		
609.		SI-5(C)	The Contractor disseminates security alerts, advisories, and directives to the EC Technical Authority and relevant internal Contractor personnel.	Org		X		
610.		SI-5(D)	The Contractor implements security directives in accordance with established time frames, or notifies the issuing organization of the degree of non-compliance.	Org		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and INFORMATION INTEGRITY (SI)</b>								
611.	Software, Firmware and Information Integrity	SI-7(A)	The Contractor employs integrity verification tools to detect unauthorized changes to software, firmware, and information.  State-of-the-practice integrity-checking mechanisms (e.g., parity checks, cyclical redundancy checks, cryptographic hashes) and associated tools can automatically monitor the integrity of information systems and hosted applications.	Org		X		
612.		SI-7(1)	The information system performs an integrity check of software, firmware, and information at start-up.	DC/Field		X		
613.		SI-7(2)	The Contractor employs automated tools that provide notification to relevant Contractor personnel upon discovering discrepancies during integrity verification.	DC		X		
614.		SI-7(3)	The Contractor employs centrally managed integrity verification tools.	DC		X		
615.		SI-7(7)	The Contractor incorporates the detection of unauthorized changes to the information system into the organizational incident response capability.	Org		X		
616.		SI-7(14)	(a) The Contractor prohibits the use of binary or machine-executable code from sources with limited or no warranty	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and INFORMATION INTEGRITY (SI)</b>								
			and without the provision of source code; and  (b) The Contractor provides exceptions to the source code requirement only for compelling mission/operational requirements and with the approval of the EC IT Security Coordinator.					
617.	Spam Protection	SI-8(A)	The Contractor employs spam protection mechanisms at information system entry and exit points to detect and take action on unsolicited messages.	DC/Field		X		
618.		SI-8(B)	The Contractor updates spam protection mechanisms when new releases are available in accordance with organizational configuration management policy and procedures.	DC/Field		X		
619.		SI-8(1)	The Contractor centrally manages spam protection mechanisms.	DC/Field		X		
620.		SI-8(2)	The information system automatically updates spam protection mechanisms.	DC/Field		X		
621.	Information Input Validation	SI-10(A)	The information system checks the validity of defined information inputs.	DC/Field		X		
622.	Error Handling	SI-11(A)	The information system generates error messages that provide information necessary for corrective actions without	DC/Field		X		

#	Control Name	ITSG-33	Control Description	Scope	Responsibility		Appl. (Y/NA)	Evidence
					Shared	Contractor		
<b>SYSTEM and INFORMATION INTEGRITY (SI)</b>								
			revealing information that could be exploited by adversaries.					
623.		SI-11(B)	The information system reveals error messages only to defined Contractor personnel with a need to know.	DC/Field		X		
624.	Information Output Handling and Retention	SI-12(A)	Information is retained within the information system and information output from the system for the lesser of 10 years or the Term of the Contract. At the end of the Term of the Contract, the Contractor must return all Information retained within the information system and information output from the system, then in the Contractor’s possession, to EC.	DC		X		
625.	Memory Protection	SI-16(A)	The information system implements security safeguards; such as data execution prevention or address space layout randomization, to protect its memory from unauthorized code execution.	DC/Field		X		

## **ANNEX A - APPENDIX F – CONTRACTOR PLAN AND DELIVERABLE SCHEDULE**

### **29. CONTRACTOR PLAN**

The Contractor must develop and maintain a plan which includes the following:

- 1) E-Poll Solution development, for each requirement in the ANNEX A - APPENDIX E – STATEMENT OF REQUIREMENTS:
  - a. How the Contractor is grouping requirements for delivery (work packages, or development packages that become test releases);
  - b. Dates the Contractor plans to deliver each requirement and package;
  - c. How the Contractor will manage the activities (test environments, teams, communications with EC); and
  - d. How the Contractor plans the migration to production ready systems for By-Elections and General Elections.
- 2) Contractor participation in the EC SA&A program as follows:
  - a. Defined security related roles and responsibilities for each organization participating in the development and implementation of the E-Poll Solution;
  - b. Schedule for the development and implementation of the controls in the SCP in ANNEX A - APPENDIX E – STATEMENT OF REQUIREMENTS of the SOW; and
  - c. Dates the Contractor plans to deliver deliverables associated with the SA&A in Section **29.01 - Contractor Deliverable Schedule**.
- 3) E-Poll Solution deployment description for each deployment requirement for Electoral Events:
  - a. How the Contractor is grouping the requirements;
  - b. Dates the Contractor plans to deliver each requirement in compliance with ANNEX A - APPENDIX G – ELECTORAL EVENT DEPLOYMENT SCHEDULES; and
  - c. How the Contractor will manage the activities (procurement of hardware, simulations, imaging of the systems, transportation and deployment to the offices of the Returning officers and Additional Assistant Returning Officers, support during the electoral event, and decommissioning of the E-poll devices).



- 4) E-Poll Solution Project Governance, Organization and Management, which describes how the Contractor proposes to do the following:
- ✓ Manage the project stakeholders and govern the activities, including what the roles and responsibilities of each are in accordance with ANNEX A - APPENDIX H – CONTRACT MANAGEMENT; and
  - ✓ Manage the Product Development Life Cycle and Product Operations Services in accordance with ANNEX A - APPENDIX I – SERVICE MANAGEMENT.

This plan must contain all Essential Requirements and all other Requirements that the Contractor has committed to deliver.

### 29.01. Contractor Deliverable Schedule

The Contractor must deliver, and maintain for the Term of the Contract, a plan which includes the delivery date of each instance of the following deliverables. Changes to such plan will be subject to EC approval.

**Table 1 - Contractor Deliverable Schedule**

Section Ref	Deliverable Type	Deliverable	Frequency of Delivery
<b>29.02. Contract Management</b>			
37.04 - Planning and Analysis Services	Report	Planning and Analysis Service Recommendations	Quarterly
37.05 - Quality Management	Documentation	Product Certifications	Contract Award, and upon each change in status
37.05 - Quality Management	Documentation	Contractor Certifications	Contract Award, and upon each change in status
37.06 - Quality Plan	Policy and Procedures	Quality Plan	Contract Award, and upon each approved revision
39.14 - Service Level Management	Policy and Procedures	Service Level Agreement	Contract Award, and upon each approved revision
39.02 - Security	Policy and Procedures	Security Plan	Contract Award, and upon each approved revision
38.04 - Change Management	Policy and Procedures	Change Management Plan	Contract Award, and upon each approved revision
38.04 - Change Management	Work Plan	RFC Response Plan	Each Request for Change (RFC)
38.04 - Change Management	Work Plan	Task Authorization Response Plan	Each Task Authorization
38.04 - Change Management	Work Plan	Forward Schedule of Changes	Monthly

39.05 - Capacity Management	Policy and Procedures	Capacity Management Plan	Contract Award, and upon each approved revision
38.06 - Release Management	Work Plan	Release Management Plan	Monthly
38.05 - Configuration Management	Policy and Procedures	Configuration Management Plan	Contract Award, and upon each approved revision
39.06 - Performance Management	Policy and Procedures	Performance Management Plan	Contract Award, and upon each approved revision
39.01 - Availability Management	Policy and Procedures	Availability Management Plan	Contract Award, and upon each approved revision
39.07 - Backup and Recovery	Policy and Procedures	Backup and Recovery Plan	Contract Award, and upon each approved revision
39.08 - Service Continuity and Disaster Recovery (DR)	Policy and Procedures	Disaster Recovery Plan	Contract Award, and upon each approved revision
39.11 - Operations and Administration	Policy and Procedures	Operations and Administration Plan	Contract Award, and upon each approved revision
39.12 - Maintenance	Policy and Procedures	E-Poll Maintenance Policies and Procedures	Contract Award, and upon approved revisions
39.13 - Technology Refreshment and Replenishment	Report	Technology Refreshment and Replenishment Plan	Contract Award, and upon approved revisions
39.14 - Service Level Management	Policy and Procedures	Service Level Management Plan	Contract Award, and upon approved revisions
39.09 - Incident Management	Policy and Procedures	Incident Management Plan	Contract Award, and upon each approved revision
38.07 - Integration and Testing	Policy and Procedures	Integration and Testing policies and procedures	Contract Award, and upon each approved revision
<b>29.03. Product Management</b>			
<b>29.03.01 PDLC Services</b>			
38.01 - Requirements Definition	Service	Requirements Definition	Contract Term
38.02 - Design Specification	Service	Design Specification	Contract Term
38.03 - Technology Architecture	Service	Technology Architecture	Contract Term
38.04 - Change Management	Service	Change Management	Contract Term
38.05 - Configuration Management	Service	Configuration Management tools	Contract Term
38.05 - Configuration Management	Service	Configuration Management	Contract Term

38.06 - Release Management	Service	Release Definitive Software Library	Contract Term
38.06 - Release Management	Service	Release Definitive Hardware Store	Contract Term
38.07 - Integration and Testing	Service	Load testing	Every Event Ready Release
38.07 - Integration and Testing	Service	Endurance testing	Every Event Ready Release
38.07 - Integration and Testing	Service	Stress testing	Every Event Ready Release
38.07 - Integration and Testing	Service	Penetration testing	Every Event Ready Release
38.07 - Integration and Testing	Service	Unit testing	Every Release
38.07 - Integration and Testing	Service	Integration testing	Every Release
38.07 - Integration and Testing	Service	User Acceptance Testing (UAT)	Every Event Ready Release
38.07 - Integration and Testing	Infrastructure	Test Contractor Central Server - current Release <sup>1</sup>	Every Release
38.07 - Integration and Testing	Infrastructure	Test Contractor Central Server - future Release <sup>1</sup>	Every Release
38.07 - Integration and Testing	Infrastructure	Pre-Production Contractor Central Server environment	Every Release
38.07 - Integration and Testing	Infrastructure	E-Poll RO Kit	Every Release
38.07 - Integration and Testing	Infrastructure	E-Poll PP Kit	Every Release
38.07 - Integration and Testing	Infrastructure	E-Poll Device	Every Release
<b>29.03.02 Event Ready E-Poll Releases</b>			
38.01 - Requirements Definition	Specification	E-Poll Solution Requirement Specification	Every Event Ready Release
38.01 - Requirements Definition	Specification	E-Poll Solution UAT Criteria.	Every Event Ready Release
38.02 - Design Specification	Specification	E-Poll Solution Design Specifications.	Every Event Ready Release
38.03 - Technology Architecture	Specification	E-Poll Solution Technology Architecture	Every Event Ready Release
39.02 - Security	SA&A Program	Detailed Design Specification (DDS) with IT Security Controls	Every Event Ready Release
39.02 - Security	SA&A Program	Concept of Operations (ConOps)	Every Event Ready Release

39.02 - Security	SA&A Program	Tailored Security Control Profile (SCP)	Every Event Ready Release
39.02 - Security	SA&A Program	Business Continuity / Disaster Recovery Plan (BCP/DRP)	Every Event Ready Release
39.02 - Security	SA&A Program	Architecture / High-Level Design with IT Security Controls	Every Event Ready Release
39.02 - Security	SA&A Program	Security Requirements Traceability Matrix (SRTM) with SA&A Evidence Package	Every Event Ready Release
39.02 - Security	SA&A Program	3rd Party SA&A Compliance Specialist's reports on the SA&A compliance	Every Event Ready Release
39.02 - Security	SA&A Program	Technical Vulnerability Assessment (VA) and Penetration Testing (PenTest) Report	Every Event Ready Release
38.06 - Release Management	Product	Release Management Report	Every Release
38.06 - Release Management	Documentation	E-Poll Policies and Procedures - E-Poll Solution	Every Event Ready Release
38.06 - Release Management	Documentation	E-Poll User Manual - E-Poll Solution	Every Event Ready Release
38.06 - Release Management	Documentation	E-Poll Training Manuals and Aids - E-Poll Solution	Every Event Ready Release
38.06 - Release Management	Documentation	E-Poll Policies and Procedures - RO Office	Every Event Ready Release
38.06 - Release Management	Documentation	E-Poll User Manual - RO Office	Every Event Ready Release
38.06 - Release Management	Documentation	E-Poll Training Manuals and Aids - RO Office	Every Event Ready Release
38.06 - Release Management	Documentation	E-Poll Policies and Procedures - Central Server	Every Event Ready Release
38.06 - Release Management	Documentation	E-Poll User Manual - Central Server	Every Event Ready Release
38.06 - Release Management	Documentation	E-Poll Operator Manual - Central Server	Every Event Ready Release
38.07 - Integration and Testing	Report	User Acceptance Test (UAT) Report	Every Event Ready Release
38.08 - Training and Knowledge Transfer	Service	E-Poll Training Requirements	Every Event Ready Release
38.08 - Training and Knowledge Transfer	Service	E-Poll User Training for ECHQ staff - E-Poll Device	Every Event Ready Release
38.08 - Training and Knowledge Transfer	Service	E-Poll User Training for ECHQ staff - RO Office	Every Event Ready Release

38.08 - Training and Knowledge Transfer	Service	E-Poll User Training for ECHQ staff - Central Server	Every Event Ready Release
38.08 - Training and Knowledge Transfer	Service	E-Poll Operator Training for ECHQ staff - Central Server	Every Event Ready Release
38.09 - Documentation	Service	Documentation Services	Contract Term
38.10 - Implementation and Migration	Documentation	Implementation and Migration procedures	Every Release
38.10 - Implementation and Migration	Documentation	Implementation and Migration plans	Every Release
38.11 - Application Service Requirements	Service	Application Service Requirements Services	Contract Term
38.12 - Applications and Licenses	Service	Applications and Licenses Services	Contract Term
38.13 - Application Warranty	Service	Application Warranty Services	Contract Term
38.14 - Artifact Management	Service	Artifact Management Services	Contract Term
<b>29.04. Operations</b>			
<b>29.04.01 Operations Hardware &amp; Software</b>			
19. Statement Of Requirement (E-Poll Solution Physical Components)	Infrastructure	Contractor Central Server(s)	Every Electoral Event
19. Statement Of Requirement (E-Poll Solution Physical Components)	Infrastructure	E-Poll RO Kit	Every Electoral Event
19. Statement Of Requirement (E-Poll Solution Physical Components)	Infrastructure	E-Poll PP Kit	Every Electoral Event
19. Statement Of Requirement (E-Poll Solution Physical Components)	Infrastructure	E-Poll Device	Every Electoral Event
19. Statement Of Requirement (E-Poll Solution Physical Components)	Infrastructure	E-Poll RO Kit, Storage	Every Electoral Event
19. Statement Of Requirement (E-Poll Solution Physical Components)	Infrastructure	E-Poll PP Kit, Storage	Every Electoral Event

19. Statement Of Requirement (E-Poll Solution Physical Components)	Infrastructure	E-Poll Device Kit, Storage	Every Electoral Event
19. Statement Of Requirement (E-Poll Solution Physical Components)	Infrastructure	E-Poll RO Kit, Shipping & Handling (to and from EC Local Offices)	Every Electoral Event
19. Statement Of Requirement (E-Poll Solution Physical Components)	Infrastructure	E-Poll PP Kit, Shipping & Handling (to and from EC Local Offices)	Every Electoral Event
19. Statement Of Requirement (E-Poll Solution Physical Components)	Infrastructure	E-Poll Device Kit, Shipping & Handling (to and from EC Local Offices)	Every Electoral Event
<b>29.04.02 Operations Services</b>			
39.01 - Availability Management	Service	Availability Management Services	Contract Term
39.01 - Availability Management	Service	Availability measurement tools	Contract Term
39.01 - Availability Management	Report	Availability Report	Annually and after each Electoral Event
39.02 - Security	Service	Security Management Services	Contract Term
39.02 - Security	Service	Security monitoring tools	Contract Term
39.02 - Security	Report	Security Report	Annually and after each Electoral Event
39.03 - Security Operations Centre	Service	Security Operations Centre Services	Contract Term
39.04 - Identity and Access Management	Service	Identity and Access Management Services	Contract Term
39.05 - Capacity Management	Service	Capacity Management Services	Contract Term
39.05 - Capacity Management	Service	Capacity monitoring tools	Contract Term
39.05 - Capacity Management	Report	Capacity Management Report	Annually and after each Electoral Event
39.06 - Performance Management	Service	Performance Management Services	Contract Term
39.06 - Performance Management	Service	Performance monitoring tools	Contract Term
39.06 - Performance Management	Report	Performance Management Report	Annually and after each Electoral Event

39.07 - Backup and Recovery	Service	Backup and Recovery Services	Contract Term
39.07 - Backup and Recovery	EC Data	Central Server backup media	Annually and after each Electoral Event
39.08 - Service Continuity and Disaster Recovery (DR)	Service	Disaster Recovery Services	When applicable and upon request by EC
39.09 - Incident Management	Service	Incident Management Services - Level 2 and Level 3 support	Contract Term
39.10 - Problem Management Services	Service	Problem Management Services	Contract Term
39.11 - Operations and Administration	Service	Operations and Administration Services	Contract Term
39.11 - Operations and Administration	Service	Operations and Administration tools	Contract Term
39.11 - Operations and Administration	Miscellaneous	Contract or Third Party supplied documentation and data	When applicable and upon request by EC
39.11 - Operations and Administration	Report	Operational reports and dashboards	Daily during Electoral Events, otherwise Monthly at minimum
39.12 - Maintenance	Service	Maintenance Services	Contract Term
39.13 - Technology Refreshment and Replenishment	Service	Technology Refreshment and Replenishment Services	Contract Term
39.14 - Service Level Management	Service	Service Level Management	Contract Term
39.14 - Service Level Management	Report	Service Level Management Report	Annually and after each Electoral Event
40. - Service Desk	Service	Service Desk	Contract Term

<sup>1</sup>The Contractor may propose that some or all E-Poll Solution components support both testing and training requirements provided that the Contractor can demonstrate to EC's satisfaction that these activities can occur concurrently without interfering or impairing the E-Poll Solution to the extent that it does not fully meet all requirements in both contexts.

Solution components provided for operation may only be used to support Electoral Event operation. All costs for operational components must be provided separately from costs for UAT and training. Costs for UAT and training should be provided separately to the extent possible.

**ANNEX A - APPENDIX G – ELECTORAL EVENT DEPLOYMENT SCHEDULES**

**30. ELECTORAL EVENT DEPLOYMENT SCHEDULES**

Note that Timelines are approximate, and that the dates in brackets may change if the Contract award date changes. Dates that are Bolded are part of the Electoral Event planning calendar and cannot be postponed.

**30.01. Initial System Release Schedule**

<b>Timeline</b>	<b>EC Notification or Authorization</b>	<b>Contractor Action</b>	<b>ECHQ Action</b>
<2 weeks after Contract award (Nov 2017)		Deliver Release 1: complete test E-Poll Solution with vendor “as is” functionality; functional requirements gap identified.	Perform E-Poll Solution test on Release 1; verify functional gap.
3-5 months after Contract award (January-March 2018)		Deliver Test Releases to be tested; confirm EC-Contractor Central Server API connectivity and function	Enable EC-Contractor Central Server API; test Releases
6 months after Contract award (early April 2018)		Deliver Release 2: Complete By-Election ready version available for testing; EC will consider waivers for some functionality.	Perform testing on Release 2
8 months after Contract award (Jun 1 2018)		Deliver Release 2: By-Election ready version with bugs fixed from previous testing. Support Regression Tests	Perform Regression Tests on Release 2



Timeline	EC Notification or Authorization	Contractor Action	ECHQ Action
8 months after Contract award (Jun 2018)	EC may authorize By-Election operation at any date following the UAT of Release 2		
<b>July 2, 2018</b> (9 months after Contract award)		Deliver Release 2: By-Election ready version available for final integration tests; support all integration tests.	Perform Integrated Systems UAT on Release 2
<b>July 2, 2018</b> (9 months after Contract award)		Deliver Release 3: GE ready version available for testing; all Essential Requirements met.	Perform testing on Release 3
<b>September 1, 2018</b> (11 months after Contract award)		Deliver Release 3: GE ready version available for final UAT; all Essential Requirements met.	Perform UAT on Release 3
14 months after Contract award (Dec 2018)	EC may authorize GE operation at any date following the UAT		
15 months after Contract award (January-February 2019)		Deliver Release 3: GE ready version with CCS configurations and Service components available for verification and UAT.	Verify Services ready, and CCS ready for configuration

Timeline	EC Notification or Authorization	Contractor Action	ECHQ Action
5-6 months before GE deployment (March/April 2019)	Deploy for Simulation	Deliver Release 3 with simulation data, for use in some field offices	Run Election Simulation
~4 months before GE deployment (May 2019)		Deliver Release 3: GE ready version available for UAT with any changes or bug fixes incorporated from Simulation.	Perform UAT on Release 3 with bug fixes
~3 months before GE deployment (June 2019)	EC approves version to be used in GE	Image the E-Poll Devices, and prepare the Contractor Central Server for GE use.	
28 months after Contract award (Feb 2020)		Deliver Release 4: GE/By-Election ready version available for UAT; all Essential Requirements met including "Oaths" requirements if not already delivered as part of Release 3, and fixes for bugs identified in the GE	Perform UAT on Release 4

**30.02. First By-Election Pre-Event Deployment Schedule**

Timeline	EC Notification or Authorization	Contractor Action	ECHQ Action	RO or AARO Action
~8 months after Contract award, or later (Jun 2018)	By-Election Preparation Start	Procure and maintain ready hardware for up to 10 EDs	Prepare for By-Election	Affected ROs have Pre-event assignment of poll locations and PD assignments complete with determination of which

				will use E-Poll Devices
~11 months after Contract award, or later (late Aug 2018)	Image approved	Prepare all E-Poll Devices with image Packages E-Poll Device Kits sufficient for up to 10 EDs	Confirm E-Poll Device Kit ED quantities (number of Polling Places and number of Kits)	
~11 months after Contract award, or later (Sept 1, 2018)	Send to Staging Location	Relocate E-Poll Device Kits closer to RO and AARO offices (if necessary)		

**30.03. 43<sup>rd</sup> GE Pre-Event Deployment Schedule**

<b>Timeline</b>	<b>EC Notification or Authorization</b>	<b>Contractor Action</b>	<b>ECHQ Action</b>	<b>RO or AARO Action</b>
~9 months before GE deployment (No earlier than Feb 2019 – propose later date if possible)	EC deployment scale finalized and authorization given to proceed.	Procure hardware and Prepare Final Testing Plan	Prepare for Simulation or final Integrated UAT	
~5 months before GE deployment (March 2019)	Deploy for Simulation	Deploy to some EDs	EC has simulation data prepared	Specified ROs have offices open

~90 calendar days before GE deployment (June 2019)	E-Poll Solution version approved	Prepares all E-Poll Devices with image, Packages all E-Poll Device Kits	Confirms E-Poll Device Kit quantities (number of EDs, ROs and AAROs, Polling Places and Kits)	All ROs have Pre-event assignment of Polling Place location and PD assignments complete
~30 calendar days before GE deployment (August 2019)	Send to Staging Locations	Relocates E-Poll Device Kits closer to ORO and AARO offices (if necessary)		

**30.04. Event Deployment (GE and By-Elections)**

This calendar reflect deployment activities, and must be coordinated with the ANNEX A – APPENDIX E.5 –Data Integration Calendar, which reflect the requirements of data transfer from the EC data centre to the Contractor Central Server.

Timeline	EC authorization or notification	Contractor Action	ECHQ Action	RO or AARO Action
~Day 30	Send to RO and AARO	Deploy E-Poll Kits to RO and AARO	HQ monitoring begins EC data centre is prepared for synchronization	ROs receive and confirm receipt
Day 24				Start training EOs on E-Poll Devices
Day 18/17		Contractor Central Server is ready to begin RLE downloads		ROs download and initialize E-Poll Devices if not already completed with PLE

Day 11		Final Day - Contractor Central Server is ready for RLE downloads – many downloads this day		Organize E-Poll Devices into E-Poll Device Kits, and distributes to Advance Poll Election Officers
Daily 10-7		1) Advance Poll monitoring 2) Contractor Central Server synchronizes to EC data centre continuously	EC prepares data from other sources in EC data centre for use in Contractor Central Server	1) Ensure that all Polling Place E-Poll Devices (or at least one per Polling Place) connect nightly
				2) After the close of the advance polling stations, provide the Statement of Electors Who Voted at the Advance Poll to candidate representatives
Day 5-3		Contractor Central Server is ready for OLE downloads	EC prepares data from all sources in EC data base for use in Contractor Central Server	1) Download and initialize E-Poll Devices that were not used at Advance Polls 2) Update E-Poll Devices used at Advance Polls with latest changes 3) Organize E-Poll Devices into E-Poll Device Kits, and distributes to Ordinary Poll EOs.
Day 0		1) Ordinary Poll monitoring 2) Contractor Central Server synchronizes to EC data centre continuously		
Day -1 to -10				Ensure that all Polling Place E-Poll Devices (or at least one per Polling Place) connect to

				upload final data
Day -2 to -15				1) Decommission Polling Place E-Poll Devices 2) Package for pickup
Day -7 to -20	RO confirms all data complete and removed	Retrieves E-Poll Devices from ORO and AARO offices. Upon receipt, the Contractor shall confirm to EC that the equipment is back in inventory.		RO confirms to EC all retrievals by Contractor and all confirmation codes showing transmission to Contractor Central Server.
This calendar has up to two weeks for judicial recounts. This time period may be extended beyond EC's control				
<b>Post-Polling Days Activities</b>				
<p>For a GE, EC shall provide written notice to the Contractor whether the scenario is a minority government:</p> <p>1) If yes, Contractor will start preparations to verify E-Poll Devices and await orders for repackaging. Equipment must stay available for EC's use.</p> <p>2) If no, Contractor will release E-Poll Devices from EC inventory, keeping inventory at By-Election levels.</p>				

**30.05. Throughout the Contract**

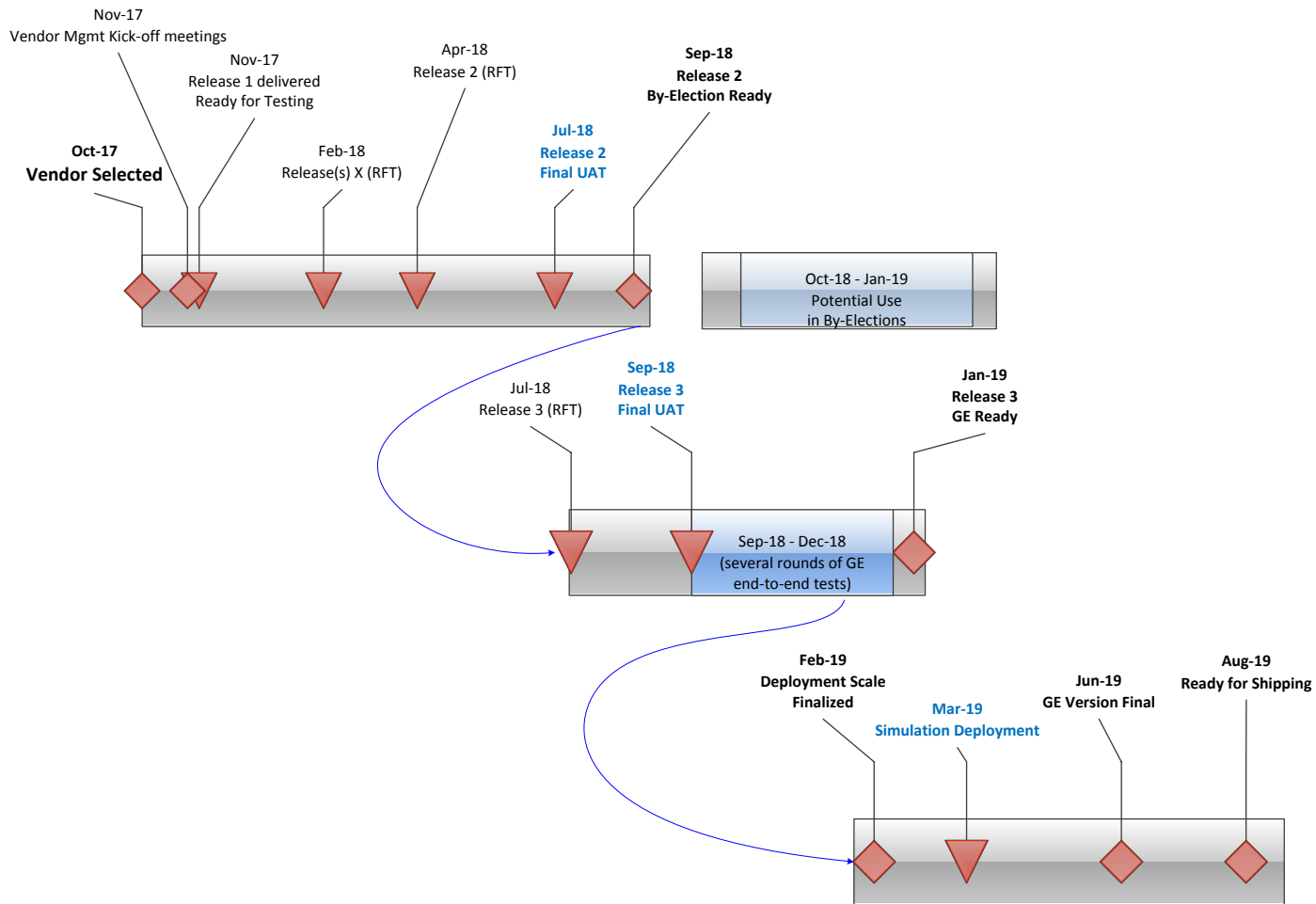
Timeline	EC authorization	Contractor Action	ECHQ Action
At all times	Preparation for integration tests	1) Update testing environments with planned release or updated data 2) Deploy new hardware to ECHQ for E-Poll Devices, if hardware has changed. 3) Prepare support and testing plans.	Performs User Acceptance Test

At all times		1) Keep Electoral Event data in Contractor Central Server with access available through reports, dashboards or web services to access the data from previous Electoral Events 2) Keep Electoral Event data in archives with ability to access as described in the SOR (within 24 or 48hrs).	Access data as necessary in investigations
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**30.06. End of Contract**

Timeline	EC authorization	Contractor Action	ECHQ Action
Within 60 calendar days of the earlier of: written notice of early termination of the Contract, or the expiry of the Contract term.	Notice of Contract expiry	Return of all EC information active and archived in EC usable format.	Verification of receipt of all information prior to Contractor deleting data.
Within 30 calendar days of notice of confirmation of receipt of information by EC	Notice of confirmation of receipt of information	Destruction of all copies of EC information provided to and otherwise obtained by the Contractor during the contract.	Confirmation of receipt destruction notice from Contractor. a

### 30.07. Development and Deployment Timeline





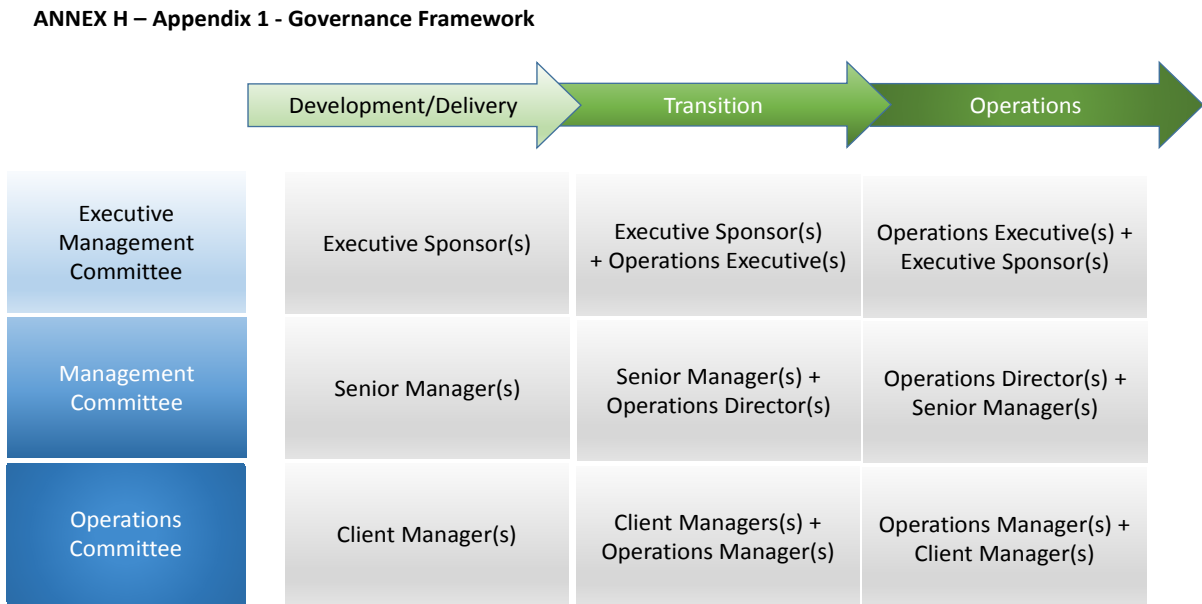
## **ANNEX A - APPENDIX H – CONTRACT MANAGEMENT**

### **31. CONTRACT MANAGEMENT**

This section describes Contract governance. While EC remains responsible and accountable for delivery of an Electoral Event, the Contractor's successful delivery of all goods and services represents a critical dependency for which the Contractor is responsible and accountable. As such, both EC and the Contractor will provide executive, project and operational managers to be a part of managing the Contract.

## ANNEX A – APPENDIX H.1 – Governance Framework

### 32. GOVERNANCE FRAMEWORK



#### 32.01. Governance Framework

EC and the Contractor shall establish a governance framework consisting of the following three committees:

1. an Executive Management committee (“EMC”).
2. a Management Committee (“MC”); and
3. an Operations Committee (“OC”);

The following sections describe the composition of these committees for the Development/Delivery phase. Note that EC’s membership may change in the initial years of the contract to reflect the transition from Development to Operations Phases.

### 33. EXECUTIVE MANAGEMENT COMMITTEE

#### 33.01. Members and Purpose

EC’s and the Contractor’s Project Executives will serve as co-chairs.

EC and the Contractor's Senior Executive Management Teams as required shall comprise the membership of the EMC. The chairs will establish terms of reference that include executive oversight to activities, issue and risk management and management of a strategic forward agenda.

**33.02. Reporting**

The Co-chairs shall ensure meetings have an agenda and that meeting minutes and records of decision are clearly documented. An Executive Project Dashboard will be produced by the Contractor in support of all meetings.

**34. MANAGEMENT COMMITTEE**

**34.01. Members and Purpose**

The MC shall consist of EC's and the Contractor's Project Director(s) who will serve as co-chairs. The chairs will establish terms of reference that include oversight to activities, issue and risk management and management of a strategic forward agenda.

**34.02. Meetings**

The MC shall meet initially within two (2) weeks from the effective date of the Contract award and thereafter as frequently as necessary, and no less frequently than once every month during the first three (3) months of the Contract. Beyond this phase regular cadence can be established between EC and the Contractor as necessary to ensure successful delivery.

**34.03. Reporting**

The Co-chairs shall ensure meetings have an agenda and that meeting minutes and records of decision are clearly documented. A monthly Project Status Report will be produced by the Contractor in support of all meetings.

**35. OPERATIONS COMMITTEE**

**35.01. Members and Purpose**

The OC shall consist of EC's and the Contractor's Project Manager(s), who shall co-chair the OC. The chairs will establish terms of reference that include oversight to activities, issue and risk management and management of a forward agenda.

**35.02. Meetings**

The OC shall meet initially within two (2) weeks of the effective date of the Contract and thereafter as frequently as necessary but no less frequently than once every week during the first three (3) months of the Contract. Beyond this phase regular cadence can be established between EC and the Contractor as necessary to ensure successful delivery.

**35.03. Reporting**

The Co-chairs shall ensure meetings have an agenda and that meeting minutes and records of decision are clearly documented. A weekly Project Status Report will be produced by the Contractor in support of all meetings.

**ANNEX A – APPENDIX H.2 – Contractor Performance Management & Metrics**

**36. CONTRACTOR PERFORMANCE MANAGEMENT & METRICS**

Contract Management Key Performance Indicators (KPIs) which will be used to evaluate Contractor performance are identified in **Table 2 - Contractor Performance Management KPIs**. Contractor Performance Metrics must be reported to the Management Committee at the frequency specified. Separate Product Performance Metrics are provided in **Table 34 - Product Performance Management KPIs**.

**Table 2 - Contractor Performance Management KPIs**

Description	Formula	Measurement Method/Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
<b>36.01. Contractor Performance Management Metrics</b>							
<b>36.01.01 KPIs Business Relationship Management</b>							
Number of EC Complaints.	[The total number of EC Complaints identified by the Operations Committee and Management Committee.] = [Number of EC Complaints]	EC Measured	All	Number of EC Complaints	0	Quarterly	Quarterly
Number of EC Complaints which were accepted as justified and/or resolved.	[The number of EC Complaints identified by the Operations Committee and/or Management Committee which were resolved without escalation to the Executive Management Committee] divided by [The number of EC Complaints identified by the	EC Measured	All	Percentage of Resolved EC Complaints	100.00%	Quarterly	Quarterly

Description	Formula	Measurement Method/Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
	Operations Committee and/or Management Committee] multiplied by 100 = [Percentage of Resolved EC Complaints].						
<b>36.01.02 KPIs Task Management</b>							
Actual cost ranges from 90% to 110% of the original cost estimates with no enhancement more than 125% of the original cost estimates.	[Number of tasks with actual costs within the acceptable deviation limits vs. the original cost estimates] divided by [Total number of tasks in the measurement period] multiplied by 100 = [percentage of tasks where the Contractor has adhered to cost estimate adherence requirements within such quarter].	EC Measured	All	Adherence to Task Budget	95.00%	Quarterly	Quarterly
The percentage of tasks implemented per EC approved schedule	[Number of tasks implemented within the target time frame] divided by [Total number of tasks in the measurement period] multiplied by 100 = [percentage of tasks implemented within the target time frame such month].	EC Measured	All	Adherence to Task Schedule	99.00%	Quarterly	Quarterly

Description	Formula	Measurement Method/Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
Contractor responds to EC requests within 10 business days.	[Number of tasks with estimates and proposals submitted within target time lines and compliant with EC defined standards and requirements] divided by [Total number of tasks in the measurement period] multiplied by 100 = [percentage of tasks where Contractor is responsive to EC requests within such quarter].	EC Measured	All	Task Request Response Time	95.00%	Quarterly	Quarterly
<b>36.02. KPIs Contract Management</b>							
Critical Milestones: 100% completed on or before the EC approved milestone date	[Number of critical (Electoral Event ready) releases delivered on or before the Electoral Event milestone date] divided by [Total number of critical (Electoral Event ready) releases in the measurement period] multiplied by 100 = [percentage of releases where the Contractor has adhered to Electoral Event schedule adherence requirements for an Electoral Event].	EC measured	All	Electoral Event Schedule Adherence	100.00%	Electoral Event	Electoral Event

Description	Formula	Measurement Method/Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
Deliverables are delivered within the actual schedule ranges from 90% to 110% of the EC approved schedule.	[Number of deliverables delivered within the acceptable deviation limits vs. the EC approved deliverable/milestone dates] divided by [Total number of deliverables in the measurement period] multiplied by 100 = [percentage of deliverables where the Contractor has adhered to schedule adherence requirements within such quarter].	EC Measured	All	Number of on-time deliverables	90.00%	Quarterly	Quarterly
Deliverables which are delivered within the actual schedule ranges from 90% to 110% of the EC approved schedule, and which pass UAT.	[Number of deliverables delivered within the acceptable deviation limits vs. the EC approved deliverable/milestone dates, which are subject to User Acceptance Testing, and which pass the EC UAT] divided by [Number of deliverables which are subject to UAT] multiplied by 100 = [Number of conforming deliverables].	EC measured	All	Number of conforming deliverables	100.00%	Quarterly	Quarterly



## **ANNEX A - APPENDIX I – SERVICE MANAGEMENT**

### **37. SERVICE MANAGEMENT**

Throughout this document, the RACI Framework is leveraged to set forth the roles and responsibilities of the Contractor and EC for the set of common services and processes that apply to the provision, delivery and management of all services in support of EC's E-Poll Solution.

**Table 3 - Definition of RACI Terminology**

<b>Activity/Role</b>	<b>Description</b>
R – Responsible	Those who do the work to achieve the task. Responsible for action/implementation. Responsibility can be shared as delegated by the Approving Authority.
A – Approver	Approver or final Approving Authority for reviewing, approving plans before they are implemented, and work performed in relation to any and all requirements related to the E-Poll Solution.
C – Consulted	Those whose opinions are sought; and with whom there is two-way communication.
I – Informed	Those who are kept up to date on progress, often only on completion of the task or deliverable; and with whom there is just one way communication.

The Service Management section of the Statement of Work will be further reviewed with the Contractor upon Contract award.

#### **37.01. Service Objectives**

The following are the key high level service objectives EC expects to achieve through E-Poll Solution Service Management:

1. to enable EC to implement business processes which assure secure, efficient and evolving operations;
2. to ensure that all critical IT lifecycle and Service Management functions and processes are defined with clearly delineated roles and responsibilities, touch points and measurements between EC and the Contractor;
3. to manage assets consistent with EC fiduciary responsibilities; and
4. to provide thorough and sound advice to enable EC leadership and management in making prudent decisions.

#### **37.02. Structure of this Appendix**

The scope of services described herein includes the set of common services and processes that make up Service Management. This refers to the broad categories of infrastructure, Application Services, Network Services, Service Desk services, Transition Services, and end user services.

The reference model for these services is IT Infrastructure Library (ITIL). Note that ITIL business relationship services, deliverables and metrics are described in ANNEX A - APPENDIX H – CONTRACT MANAGEMENT. The remainder of this Appendix addresses services which are part of the Contractor E-Poll Solution including:

- Quality Management
- Change Management
- Configuration Management
- Release Management
- Availability Management
- Capacity Management
- Business Continuity Management
- Incident & Problem Management
- Service Level Management

**37.03. General Service Management Responsibilities**

The following table identifies general roles and responsibilities associated with this SOW.

**Table 4 - Service Management General Roles and responsibilities**

General Roles and Responsibilities	Contractor	EC
Provide services and the supporting processes that support EC business needs, technical and End User requirements.	R	A
Approve services and the supporting processes that support EC business needs, technical and End User requirements.	I	R
Facilitate EC compliance with principles, policies, standards and regulatory requirements applicable to EC for information, information systems, personnel, physical, and technical security.	R	A
Develop and maintain standards, processes and procedures that will be used in the delivery of all requirements related to the E-Poll Solution. Clearly delineate roles and responsibilities and measurements between EC and the Contractor.	R	A
Approve the comprehensive standards, processes and procedures that will be used in the delivery of the requirements.	I	R
Conform to changes in legislation, regulations and policies.	R	A
Report performance against Service Level Requirements (SLRs).	R	A
Coordinate all changes to the IT infrastructure.	R	A
Provide timely creation, updating, maintenance and provisioning of all appropriate plans, time and cost estimates, technical specifications, management documentation and management reporting in a format that is acceptable to EC for all changes.	R	A
Adhere to ITIL best practices and EC approved Key Performance Indicators (KPIs).	R	A

General Roles and Responsibilities	Contractor	EC
Approve the use of the ITIL best practices and KPIs.	C	R

### 37.04. Planning and Analysis Services

Planning and Analysis Services are activities and deliverables associated with researching new technical trends, products and services, such as hardware components, software and networks that offer opportunities to improve the efficiency and effectiveness. Planning and Analysis Services can mitigate risks by reducing defects and improving the quality of IT services.

The following table identifies the Planning and Analysis roles and responsibilities, respectively of the Contractor and EC.

**Table 5 - IT Life Cycle and Operations Planning and Analysis**

Planning and Analysis Roles and Responsibilities	Contractor	EC
Provide corporate business goals and objectives, information system roadmaps, IT governance model and, IT risk issues and opportunities.	I	R
Define services, processes, and standards for Planning and Analysis Services.	R	A
Review and approve services, processes, and standards for Planning and Analysis Services.	C	R
Define EC requirements at the enterprise level (e.g., business, technology strategy, functional, availability, capacity, performance, backup and service continuity).	C	R
Perform Planning and Analysis Services based on EC requirements (e.g., availability, capacity, performance, and Disaster Recovery Services).	R	A
Document and deliver recommendations for new or changes to; in scope applications, infrastructure, processes, and services based on Planning and Analysis Service results.	R	A
Approve recommendations for new or changes to: applications, infrastructure, processes and services.	C	R
Document and deliver management reports required for Planning and Analysis Services (e.g., utilization and capacity trend reports, rollout plans).	R	A
Define, document and deliver data retention policies.	C	R
Continuously monitor technical trends through independent research; document and report on products, processes and services with potential use to align with EC business and technology strategy.	R	A
Perform feasibility studies for the implementation of new technologies that best meet EC business needs and meet cost, performance and quality objectives.	R	A
Describe how the proposed E-Poll Solution fits into their long-term product roadmap and any product plans which could benefit EC.	R	I

Planning and Analysis Roles and Responsibilities	Contractor	EC
Define enterprise level deployment management policies, procedures and requirements (e.g., feasibility analysis, cost benefit analysis, scheduling, costing, resource planning, communication planning, procurement, risk management and quality management).	C	R
Perform management function for Contractor managed activities.	R	A
Perform management oversight and liaison function to the business.	I	R
Conduct regular planning for technology refreshes and upgrades.	R	A
Participate in regular planning for technology refreshes and upgrades.	C	R
Conduct quarterly technical reviews and document and deliver recommendations for IT service improvements that align to EC business goals.	R	A

**37.05. Quality Management**

In the performance of the work, the Contractor must comply with the requirements of:

ISO 9001:2015 - Quality management systems, published by the International Organization for Standardization (ISO), current edition at the date of submission of the Contractor bid.

It is not intended that the Contractor be certified to ISO 9001. However, the Contractor's quality management system must address all requirements appropriate to the scope of the work.

**37.06. Quality Plan**

At the effective date of the Contract, the Contractor must have a quality plan prepared in accordance with the latest issue, on that date, of ISO 10005:2005 "Quality management systems - Guidelines for quality plans" (the "Quality Plan").

The Quality Plan must describe how the Contractor will conform to the specified quality requirements of the Contract and specify how the required quality activities are to be carried out, including quality assurance of sub-contractors.

## ANNEX A – APPENDIX I.1 – Product Development Lifecycle (PDLC) Services

### 38. PDLC SERVICES

The Contractor must provide the following services. Delivery dates for deliverables identified in this Appendix are provided in ANNEX A - APPENDIX F – CONTRACTOR PLAN AND DELIVERABLE SCHEDULE.

#### 38.01. Requirements Definition

Requirements Definition Services are the activities and deliverables associated with the assessment and definition of functional, performance, IT Continuity and Disaster Recovery, and Security requirements. These requirements drive the technical design for the environment. An integral part of requirements definition is defined in the UAT Criteria which will be used to verify compliance of the product with the requirements.

The following table identifies the Requirements Definition roles and responsibilities, respectively of the Contractor and EC.

**Table 6 - IT Life Cycle and Operations Requirements Definitions**

Requirements Definition Roles and Responsibilities	Contractor	EC
Define and document requirements for the technical design of the environment.	C	R
Participate in defining requirements for the technical design of the environment.	R	A
Document and deliver requirements to deliver Services in EC agreed to formats.	R	A
Ensure requirements are compliant with legislation and regulations and facilitate EC's compliance with applicable government policies and procedures.	R	A
Approve all requirements.	I	R
Document and Deliver UAT Criteria.	R	A
Review and approve all UAT Criteria.	I	R

#### 38.02. Design Specification

Design Specification Services are the activities and deliverables associated with translating user and information system requirements into detailed technical specifications.

The following table identifies the Design Specification roles and responsibilities, respectively of the Contractor and EC.

**Table 7 - IT Life Cycle and Operations Design Specifications**

Design Specifications Roles and Responsibilities	Contractor	EC
Define Design Specifications Services standards and requirements.	C	R

<b>Design Specifications Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Develop and maintain technical design plans and environment configuration based on EC Design Specifications Services standards and requirements including IT architecture, functional, performance, availability, maintainability, security and Disaster Recovery requirements.	R	A
Determine required component upgrade, replacement and/or conversion specifications (e.g., Equipment, Software, Networks).	R	A
Review and approve design plans through coordination with the appropriate EC technology standards group and design architects.	I	R
Conduct site surveys for design efforts as required.	R	A
Provide written information pertaining to the Design Specifications to enable creation of the appropriate design documents.	C	R
Document and deliver Design Specifications.	R	A
Review and approve Design Specifications.	I	R

### **38.03. Technology Architecture**

Technology Architecture Services are the activities and deliverables associated with the design and development of the IT infrastructure and tools that support the IT Service.

The following table identifies the Service Level Monitoring and Reporting roles and responsibilities, respectively of the Contractor and EC.

**Table 8 - IT Life Cycle and operations Technology Architecture**

<b>Technology Architecture Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Recommend Technology Architecture Services for the design and development of the IT infrastructure and tools required to support the IT Service.	R	A
Review and approve Technology Architecture Services design and development requirements.	I	R
Develop and document Technology Architecture Service designs and plans that meet requirements and adhere to defined policies.	R	A
Review and approve Technology Architecture Service designs and plans.	I	R
Implement design for changes to existing or new IT Services.	R	A

### **38.04. Change Management**

Change Management Services are the activities and deliverables to ensure that standardized methods and procedures are used for efficient and prompt handling of all changes, in order to minimize the impact of change upon service quality and consequently to improve the day to day operations of EC.

Change Management processes and activities are inter-related and complementary with Release Management and Configuration Management, as well as Incident Management and Problem Management. Change Management activities should be completed in accordance with the Configuration Management family of the SCP, elaborated in **ANNEX A – APPENDIX E.9 – SECURITY REQUIREMENTS.**

The following table identifies Change Management roles and responsibilities, respectively of the Contractor and EC.

**Table 9 - IT Life Cycle and Operations – Service Support: Change Management**

<b>Change Management Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Recommend Change Management policies, procedures, processes and training requirements per the Change Management process components outlined above, including Change Advisory Board (CAB) composition, activities, and the financial, technical, and business approval authorities appropriate to EC IT and business requirements.	R	A
Participate in the development of the Change Management and Change Advisory Board (CAB) procedures, policies, and approval authorities.	C	R
Establish change priority schema and classifications (impact, priority, risk) and change authorization process.	R	A
Review and Approve Change Management process, procedures and policies.	I	R
Receive and document all Requests for Change (RFC) and classify Proposed Changes to the Services, which must include change cost, risk impact assessment, and system(s) security considerations.	R	A
Review and approve non pre-approved RFCs.	I	R
Ensure that appropriate back out plans are documented and in place in the event of systems failure as a result of the change.	R	A
Document and deliver the Change Management plan.	R	A
Approve Change Management plan.	I	R
Develop and maintain a schedule of planned approved changes (Forward Schedule of Changes or FSC) for EC to review.	R	A
Identify change logistics.	R	A
Provide change documentation as required, including proposed metrics as to how effectiveness of the change will be measured.	R	A
Review and approve change documentation and change effectiveness metrics.	I	R
Coordinate, schedule, and conduct CAB meetings to include review of planned changes and results of changes made, ensuring that all appropriate parties are invited and represented in accordance with approved CAB policies.	R	A
Participate in CAB meetings as EC deems appropriate or necessary.	C	R
Authorize and approve scheduled changes or alter the schedule change requests as defined in the Change Management procedures.	I	R

Change Management Roles and Responsibilities	Contractor	EC
Document and communicate the approved FSC (Forward Schedule of Changes) to all appropriate IT and business unit stakeholders within EC of change timing and impact.	R	A
Oversee the approved change build, test, and implementation processes to ensure these activities are appropriately resourced and completed according to Change schedule.	R	A
Ensure that thorough testing is performed prior to release and assess EC business risk related to any change that is not fully tested prior to implementation.	R	A
Participate in business risk assessment for change to be introduced without being fully tested.	C	R
Monitor changes, perform change reviews and report results of changes, impacts, and change effectiveness metrics.	R	A
Verify that change met objectives based upon predetermined effectiveness metrics and determine follow up actions to resolve situations where the change failed to meet objects.	R	A
Review and approve change management results.	I	R
Close out RFCs that met the change objectives or changes that were abandoned.	R	A
Perform Change Management quality control reviews.	R	A
Perform audits of Change Management processes and records.	I	R
Provide EC Change Management reports as required and defined by EC.	R	A

### 38.05. Configuration Management

Configuration Management Services are the activities and deliverables associated with providing a logical model of the IT Services devices or assets (including software licenses) and their relationships by identifying, controlling, maintaining and verifying installed hardware, software and documentation (i.e., maintenance contracts, Service Level Agreement (SLA) documents, etc.) A primary objective of configuration management is to manage the interoperability of E-Poll Solution components to avoid service disruptions arising from co-incompatibility of E-Poll Solution components (e.g. incompatibility of a software version with an underlying operating system version or device driver version). Configuration Management activities should be completed in accordance with the Configuration Management family of the SCP, elaborated in **ANNEX A – APPENDIX E.9 – SECURITY REQUIREMENTS**.

The following table identifies the Configuration Management roles and responsibilities, respectively of the Contractor and EC.

**Table 10 - IT Life Cycle and Operations – Service Support: Configuration Management**

Configuration Management Roles and Responsibilities	Contractor	EC
Define Configuration Management requirements and policies.	R	A
Develop, document, deliver and maintain Configuration Management procedures that meet requirements and adhere to defined policies.	R	A



<b>Configuration Management Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Review and approve Configuration Management procedures and processes.	I	R
Identify and document the Configuration Item structure.	R	A
Approve the Configuration Item structure.	I	R
Establish Configuration Management Database (CMDB), in accordance with EC requirements.	R	A
Review and approve CMDB.	I	R
Select, install and maintain Configuration Management tools.	R	A
Review and approve Configuration Management tools.	I	R
Enter/upload configuration data into configuration database.	R	A
Establish process and data interfaces to Incident and Problem Management, Change Management, technical support, maintenance and Asset Management processes and tools.	R	A
Establish appropriate authorization controls for modifying configuration items and verify compliance with Software licensing.	R	A
Proactively update and incorporate deficiencies into CMDB and interfaced tools and processes.	R	A
Establish guidelines for physical and logical separation between path to production and production and the process for deploying and back out of configuration items.	R	A
Develop procedures for establishing configuration baselines as reference points for rebuilds, and provide ability to revert to stable configuration states.	R	A
Establish procedures for verifying the accuracy of configuration items, adherence to Configuration Management process and identifying process deficiencies.	R	A
Provide a Configuration Management deficiency report and steps taken to address the issues identified.	R	A
Provide EC Configuration Management reports as required and defined by EC.	R	A
Audit Configuration Management process and accuracy of configuration data.	I	R

### **38.06. Release Management**

Release Management Services are activities and deliverables related to implementing changes to services and covers software, hardware and supporting documentation such as specifications, policies, procedures and training material. Release Management Services take a holistic view of a change to a service to ensure that the technical and non-technical aspects of a release are integrated and meet all requirements.

These changes can be implemented by rolling out a combination of new applications or infrastructure software and/or upgraded or new hardware, or simply by making changes to the documentation. Release Management processes and activities are inter-related and complementary with the Change Management process, as well as Configuration Management and Problem Management.

The following table identifies Release Management roles and responsibilities, respectively of the Contractor and EC.

**Table 11 - IT Life Cycle and Operations – Service Support: Release Management**

<b>Release Management Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Participate in the development of the Release Management process, policies and procedures.	C	R
Document and deliver Release Management policies, procedures, processes, and training requirements per the Release Management process components outlined above.	R	A
Review and approve Release Management process, procedures and policies.	I	R
Maintain appropriate secure environment(s) where all authorized versions of all Software, in physical or electronic form as applicable (Definitive Software Library or DSL) are stored, protected and accounted.	R	A
Maintain an appropriate secure environment(s) where all Equipment spares (Definitive Hardware Store or DHS) are stored, protected and accounted.	R	A
Ensure that all Equipment spares are secured in the DHS and reflected in the configuration management database(s).	R	A
Establish, manage, update, and maintain the overall Release Management Plan and Release Schedule for all planned Releases.	R	A
Establish and administer the version control schema as it relates to Release Management of EC custom applications.	R	A
Develop, manage, update and maintain formal Release Management Plans for each Release in coordination with Change Management.	R	A
Develop quality plans and back out plans as appropriate for each Release.	R	A
Provide Release Management Plans and Release Schedules to EC for review.	R	A
Review and approve Release Management Plans and Release Schedules.	I	R
Conduct site surveys, as necessary, to assess existing Equipment and Software being used to validate Release package requirements and dependencies.	R	A
Plan resource levels and requirements for supporting a Release.	R	A
Ensure that any new Software, Equipment, or support services required for the Release are procured and available when needed.	R	A
Ensure that all necessary testing environments are available and properly configured to support Release testing.	R	A
Ensure there is segregation of duties between the Application developer testers and the Release Management testers.	R	A
Conduct UAT as required.	C	R
Schedule and conduct Release Management meetings to include review of planned releases and results of changes made.	R	A
Identify and document all Configurable Items (CIs) that need to be included in the Release, as well as all system inter-dependencies.	R	A
Plan and manage the UAT process for each Release.	R	A

Release Management Roles and Responsibilities	Contractor	EC
Review and approve Release UAT plans.	I	R
Provide Release documentation as required.	R	A
Authorize and approve scheduled Releases or alter the schedule as defined in the Release Management procedures.	I	R
Review Release Management details and alter as appropriate to meet the needs of EC (e.g., back out plan, go/no go decision).	R	A
Prepare input to EC user training and communication materials, including: <ul style="list-style-type: none"> <li>a. instructional materials on installation (including download of data), operation, best practises, troubleshooting and decommissioning of E-Poll Solution components.</li> <li>b. instructional material for the use of the E-Poll Solution integrated training components</li> <li>c. instructional material for the management/configuration and use of the Contractor Central Server</li> <li>d. when available, video aids</li> </ul>	R	A
Review and approve input to EC user training and communication materials.	I	R
Provide training for identified ECHQ staff who will develop the field policies, procedures and training materials for: <ul style="list-style-type: none"> <li>a. installation (including download of data), operation, best practises, troubleshooting and decommissioning of E-Poll Solution components</li> <li>b. management/configuration and use of the Contractor Central Server</li> </ul>	R	A
Notify EC of Release timing and impact and provide communications to the Service Desk.	R	A
Implement Release in compliance with Change Management requirements and adherence to detailed release plans.	R	A
Modify configuration database, asset management items, and service catalog (if applicable) to reflect changes to CIs due to the Release.	R	A
Conduct post mortem of Releases that necessitated implementation of the backout plan and develop and implement appropriate corrective or follow up actions to minimize future occurrences.	R	A
Perform quality control audits and approve Release control results.	I	R
Provide EC Release Management reports for each release which include: <ul style="list-style-type: none"> <li>a. The latest version of each component comprising the release</li> <li>b. Component version compatibility requirements</li> <li>c. The list of CRs included in the release</li> <li>d. The list of outstanding CRs, known issues, and when available work arounds</li> <li>e. UAT reports of all testing activities.</li> </ul>	R	A

### 38.07. Integration and Testing

Integration and Testing Services are the activities and deliverables associated with ensuring the interoperability of the IT infrastructure within and across IT services and that all individual IT

components configured with or added to the IT environment work together cohesively to achieve the intended results.

For greater clarity, Integration and Testing Services includes the following types of testing:

- a. unit testing to verify compliance of E-Poll Solution components with requirements;
- b. integration testing to verify compliance of the complete E-Poll Solution with requirements, and to confirm readiness for user acceptance testing (UAT);
- c. load testing: load testing at various user load levels which include at minimum the following:
  - i. throughput testing;
  - ii. concurrency testing;
  - iii. end-user experience testing (page response times, transactions with errors); and
  - iv. load balance testing;
- d. endurance testing: testing to identify degradation over time of the E-Poll Devices and central server;
- e. stress testing: testing to determine the breaking points of the E-Poll Devices and central server;
- f. penetration testing: to identify any potential security breaches; and
- g. UAT to verify compliance of a release with requirements to authorize use for Electoral Events. UAT is the final step before a release is approved for deployment to the production environment, and may include any or all of the other testing listed above. The E-Poll Solution which has successfully passed UAT may be designated as Event Ready. A successful UAT means that the E-Poll Solution is fully compliant with the requirements applicable for the Release (i.e. for the set of requirements for which EC has authorized and against which it is tested). simulation testing; testing to confirm that the E-Poll Solution integrates with all other Electoral Event operations including all services provided by the Contractor such as, but not limited to, deployment, shipping, support, and incident and problem management.

The Contractor must provide, in the following Quantities, all physical E-Poll Solution Components necessary to support the testing, as described above, for each Release:

E-Poll Solution Component	Quantity to be supplied for ECHQ testing and training
E-Poll Contractor Central Server (dedicated instances)	2
E-Poll RO Kits	6
E-Poll PP Kits	12
E-Poll Device Kits	36

**Table 12 - E-Poll Solution Components for Testing and Training**

Whenever a new Release is to be tested, the Contractor must provide a complete set of E-Poll Solution components in the quantities described above, for the purpose of testing and training for that Release. These solution components are independent of the equipment which is already currently in EC's possession for the purpose of supporting the current supported operational production release. Whenever a new Release is successfully accepted by EC as an Event Ready Release which meets all planned requirements for that release, EC will return the E-Poll Solution components supporting the deprecated Release within 90 days. If at any time EC chooses to retain any portion of E-Poll Solution Components, EC will purchase the components at the prices specified in Section 8 – Pricing tables.

The following table identifies the Integration roles and responsibilities, respectively of the Contractor and EC.

**Table 13 - IT Life Cycle and Operations – Integration and Testing**

Integration and Testing Roles and Responsibilities	Contractor	EC
Define Integration and Testing requirements and policies.	C	R
Develop, document, deliver and maintain Integration and Testing procedures and plans that meet requirements and adhere to defined policies.	R	A
Review and approve Integration and Testing procedures and plans.	I	R
Deploy and manage Integration and Testing environments.	R	A
Maintain Software Release Matrices across Integration and Testing environments.	R	A
Review and approve the Software Release Matrix.	I	R
Stage new and upgraded Service components or Services to Integration and Testing environment.	R	A
Assess and communicate the overall impact and potential risk to Service components prior to implementing Changes.	R	A
Conduct testing for all new and upgraded Service components or Services to include unit, system, integration, regression, load, stress, security and UAT based on documented requirements and policies.	R	A
Conduct UAT and confirm success for all new and upgraded Service components or Services based on documented requirements and policies.	I	R

<b>Integration and Testing Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Validate all new and upgraded Service components or Services for compliance with EC security policies.	R	A
Perform modifications and adjustments to new and upgraded Service components or Services as a result of testing, and validate results.	R	A
Review and approve new and upgraded Service components or Services test results.	I	R
Perform Configuration Management and Change Management activities related to Integration and Testing Services.	R	A
Ensure path to production environments maintain consistent configuration across all Service components.	R	A

### **38.08. Training and Knowledge Transfer**

Training and Knowledge Transfer Services are the activities and deliverables which assure the bi-directional transfer of knowledge between EC and the Contractor necessary to enable individuals to complete the work in this SOW. To this end, the Contractor must provide the following types of training:

- a. Training for the improvement of skills through education and instruction for Contractor's staff. The Contractor must participate in any initial and ongoing training delivered by EC as required that would provide a learning opportunity about EC's business and technical environment.
- b. Training for the purpose of enabling EC's staff to utilize the functions and features of the E-Poll Solution and Services. Delivery methods may include classroom style, computer based, individual or other appropriate means of instruction.

The Contractor must provide all physical E-Poll Solution Components necessary to support the training of ECHQ staff as described above in Table 12 - E-Poll Solution Components for Testing and Training:

The following table identifies the Training and Knowledge Transfer roles and responsibilities, respectively of the Contractor and EC.

**Table 14 - IT Life Cycle and Operations – Training and Knowledge Transfer**

<b>Training and Knowledge Transfer Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Define Training and Knowledge Transfer requirements and policies.	R	A
Develop, document and maintain Training and Knowledge Transfer procedures that meet requirements and adhere to defined policies.	R	A
Review and approve Training and Knowledge Transfer procedures.	I	R
Review and approve Contractor developed training program.	I	R

<b>Training and Knowledge Transfer Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Develop and deliver training program to instruct EC personnel on the provision of Contractor Services (e.g., “rules of engagement,” requesting Services).	R	A
Develop, implement and maintain an EC accessible knowledge database.	R	A
Develop and implement Knowledge Transfer procedures to ensure that more than one individual understands key components of the business and technical environment.	R	A
Participate in EC delivered instruction on the business and technical environment.	R	A
Develop, document and deliver training requirements that support the ongoing provision of EC Services, including refresher courses as needed and instruction on new functionality.	R	A
Take training classes as needed to remain current with systems, Software, features and functions for which Service Desk support is provided, in order to improve Service performance (e.g., First Contact Resolution).	R	A
Provide training when substantive (as defined between EC and Contractor) technological Changes (e.g., new systems or functionality) are introduced into EC environment, in order to facilitate full exploitation of all relevant functional features.	R	A
Provide ongoing training materials for Service Desk personnel on EC business and technical environments as defined by EC.	R	A
Provide facilities for training of EC employees.	I	R

### 38.09. Documentation

Documentation Services are the activities and deliverables associated with developing, revising, maintaining, reproducing and distributing Service information in hard copy and electronic form.

The following table identifies the general documentation roles and responsibilities, respectively of the Contractor and EC.

**Table 15 - IT Life Cycle and Operations – Documentation**

<b>Documentation Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Recommend Documentation requirements and formats.	R	A
Define Documentation requirements, formats and policies.	C	R
Develop, document, deliver and maintain Documentation procedures that meet requirements and adhere to defined policies.	R	A
Review and approve Documentation procedures.	I	R
Provide output in agreed format for support of activities throughout the lifecycle of Services as specified in each IT Service.	R	A
Maintain and update documentation for system specifications and configurations (e.g., interconnection topology, configurations, and network diagrams). Create documentation when new capabilities or changes are introduced.	R	A
Provide EC specific operating requirements.	I	R

Documentation Roles and Responsibilities	Contractor	EC
Document standard operating procedures (e.g., boot, failover, batch processing, backup).	R	A
Review and approve the Operations and Administration Procedures.	I	R
Document job production and maintenance schedules.	R	A
Review and approve job production and maintenance schedules and Documentation.	I	R
Develop a list of standard IT services and products, including standard and available non-standard Equipment and Software configurations and list of services with standard cycle times.	R	A
Review and approve list of standard IT services and products.	I	R
Provide input to EC to support development of a list of in-scope IT services and products, including standard and available non-standard Equipment and Software configurations and list of services with standard cycle times. Maintain the list of products and services as they change.	R	A

### 38.10. Implementation and Migration

Implementation and Migration Services are the activities and deliverables associated with the installation of new and upgraded IT components (e.g., hardware, software [including operating system] and network components).

The following table identifies the Implementation and Migration roles and responsibilities, respectively of the Contractor and EC.

**Table 16 - IT Life Cycle and Operations – Implementation and Migration**

Implementation and Migration Roles and Responsibilities	Contractor	EC
Define Implementation and Migration requirements and policies.	C	R
Develop, document, deliver and maintain Implementation and Migration procedures that meet requirements and adhere to defined policies.	R	A
Review and approve Implementation and Migration Service procedures.	I	R
Notify EC of equipment migration and redeployment plans and schedules.	R	A
Review all Implementation and Migration plans and schedules with EC.	R	A
Approve Implementation and Migration plans and schedules.	I	R
Provide EC IT technical staff and End Users with training related to the Implementation and Migration to new and upgraded Service components or Services.	R	A
Conduct pre-installation site surveys, as required (not anticipated for E-Poll Solution).	R	A
Coordinate physical infrastructure changes as required (e.g., wiring, cable plant, cooling, etc. - not anticipated for E-Poll Solution).	R	A
Install physical infrastructure as required (e.g., wiring, cable plant, cooling, etc.) in EC managed facilities (not anticipated for E-Poll Solution).	I	R
Coordinate Implementation and Migration support activities with EC IT staff and Contractor IT staff.	R	A



<b>Implementation and Migration Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Install or migrate new and upgraded Service components or Services into operational environment.	R	A
Perform validation tests on all new and upgraded Service components or Services.	R	A
Approve successful implementation of new and upgraded Service components or Services.	I	R
Update all documentation to new and upgraded Service components or Services.	R	A

### **38.11. Application Service Requirements**

Application Service Requirements are a subset of Service Management activities and deliverables which pertain directly to software components of the E-Poll Solution.

### **38.12. Applications and Licenses**

Application and License Services are the activities associated with ensuring that Contractor and third-party product licenses which are a component part of the E-Poll Solution have been legally obtained, and sufficiently available to support relevant EC operations.

The following table identifies the applications and licenses roles and responsibilities, respectively of the Contractor and EC.

**Table 17 - Applications and Licenses**

<b>Applications and Licenses Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Maintain licenses for applications, where applicable. This will be under the condition that these licenses have been legally obtained and are available for use for the period required.	R	C
Provide reports of licenses used per application.	R	I
In case of expected license shortages, initiate relevant actions according to the respective Application Services and License Agreements.	R	C

### **38.13. Application Warranty**

Application Warranty Services are the activities associated with repairing errors/defects for Contractor developed applications or enhancements that are discovered after application(s) or enhancements are placed into the applicable production environment.

The following table identifies Application Warranty roles and responsibilities, respectively of the Contractor and EC.

**Table 18 - Application Warranty**

<b>Application Warranty Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Provide guidance and recommendations on changes to baseline versions in support of Corrective and Emergency Maintenance, and Preventative Maintenance.	R	I
Provide decisions and approval on recommendations for changes to baseline versions.	I	R
Provide all software upgrades/patches/fixes and other change requests as agreed by EC and as documented for Corrective and Emergency Maintenance and Adaptive Maintenance.	R	I
Apply all software upgrades/patches/fixes and other change requests as agreed by EC and as documented for Corrective and Emergency Maintenance and Adaptive Maintenance.	R	I

**38.14. Artifact Management**

Artifact Management relates to activities associated with maintaining all artifacts needed to support EC applications, including updating such artifacts based on changes initiated by EC. For Application Services, the term "artifact" implies all custom tangible products, including documentation, scripts and source code, which are required to support the complete application lifecycle (design, build, test, deploy, maintain, decommission).

The following table identifies Artifact Management roles and responsibilities, respectively of the Contractor and EC.

**Table 19 - Artifact Management**

<b>Artifact Management Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Maintain artifacts for configuration design and source code management, system/business requirements, functional specification, technical design, regression test plan, unit test plans, functional test plans, custom code components and batch schedule.	R	I
Maintain artifacts for architecture standards, business architecture, logical database design, security architecture model and User Acceptance Test plans.	I	R
Maintain artifacts for technology architecture.	I	R
Maintain artifacts for, physical database structure, application security implementation design.	R	I
Update artifacts based on changes in the environment as appropriate and as requested.	R	I
Provide full access to EC to view and review artifacts at all times.	R	I

## ANNEX A – APPENDIX I.2 – Product Operation Services

### 39. PRODUCT OPERATION SERVICES

The Contractor must provide the following services. Delivery dates for deliverables identified in this Appendix are provided in ANNEX A - APPENDIX F – CONTRACTOR PLAN AND DELIVERABLE SCHEDULE.

#### 39.01. Availability Management

Availability Management Services are the activities and deliverables associated with meeting the overall availability requirements of the E-Poll Solution. Availability Management covers the evaluation, design, implementation, measurement and management of infrastructure availability from a component and an end-to-end perspective.

The following table identifies the Availability Management roles and responsibilities, respectively of the Contractor and EC.

**Table 20 - IT Lifecycle and Operations Service Delivery: Availability Management**

Availability Management Roles and Responsibilities	Contractor	EC
Establish criteria and SLRs for Availability Management support requirements, including IT systems and services to be covered.	C	R
Develop, document and deliver Availability Management policies, process and procedures and determine appropriate Availability Management tools and methods that support EC’s Availability Management support requirements.	R	A
Participate in the development of Availability Management policies, process and procedures and identifying the tools and availability methods to be used.	C	R
Review and approve Availability Management policies, processes and procedures.	I	R
Implement agreed-upon Availability Management policies, processes and procedures.	R	A
Provide unrestricted read access by EC authorized staff and designated personnel to all Availability knowledgebase data and records from the applicable Effective Date.	R	A
Provide unrestricted read access to EC authorized Contractor staff and designated personnel to all historical Availability knowledgebase data and records prior to the applicable effective Date.	I	R
Ensure that Availability requirements are included when requirements are identified when upgrading and/or designing new IT systems and services to support business users.	I	R
Participate in user requirements gathering and analysis when upgrading and/or designing new IT systems and services to ensure that IT Services and systems are designed to deliver the required levels of Availability (mapped to the SLRs) required by the business.	R	A

Availability Management Roles and Responsibilities	Contractor	EC
Create Availability and recovery design criteria to be applied to upgrades and/or new or enhanced Infrastructure design.	R	A
Participate in creating Availability and recovery design criteria to be applied to upgrades and/or new IT Infrastructure system and services design.	C	R
Coordinate with the IT service support and IT service delivery process owners and managers from EC to research, review, and assess Availability issues and optimization opportunities.	R	A
Define the Availability measures and reporting required for the IT Infrastructure and its components.	I	R
Participate with EC in defining the Availability measures and reporting requirements.	R	A
Recommend appropriate tools and practices to measure and report on agreed upon Availability measures for upgraded and/or enhanced IT Infrastructure.	R	A
Review and approve Availability measurement tools and practices.	I	R
Ensure that approved Availability measurement tools and practices are implemented.	R	A
Monitor and maintain an awareness of technology advancements and IT best practices related to Availability optimization and periodically provide updates to EC IT management.	R	A
Ensure that all Availability Management improvement initiatives conform to defined Change Management procedures set forth in the Operations and Administration Procedures.	R	A
Work with EC and sub-contractors (e.g., public carriers, Internet Service Suppliers, sub-contractors, etc.) to meet Availability SLRs..	R	A
Lead Problem Management review sessions as appropriate, specifically those Problems related to outages of critical systems.	R	A
Monitor actual IT Availability achieved versus targets and ensure shortfalls are addressed promptly and effectively.	R	A
Conduct Availability Assessment review sessions and provide improvement recommendations.	R	A
Participate in Availability review sessions.	C	R
Review and approve improvement recommendations.	I	R
Coordinate with EC and sub-contractors to gather information on IT systems and service Availability issues and trends to be used for trend analysis.	R	A
Produce and maintain an Availability Plan which prioritizes and plans approved IT Availability improvements.	R	A
Review and approve Availability Plan.	I	R
Provide IT Availability reporting to ensure that agreed levels of Availability, reliability, and maintainability are measured, reported and monitored on an ongoing basis.	R	A
Promote Availability Management awareness and understanding within all IT support organization including sub-contractors.	R	A

Availability Management Roles and Responsibilities	Contractor	EC
Perform regular reviews of the Availability Management process and its associated techniques and methods to ensure that all are subjected to continuous improvement and remain fit for purpose.	R	A
Periodically audit the Availability Management process to ensure that it continues to deliver desired results in compliance with agreed upon policies, processes and procedures.	I	R

### 39.02. Security

Security Services are the activities and deliverables associated with maintaining security of all aspects of the end-to-end E-Poll Solution from a technical, operational and management perspective.

The following table identifies general Security roles and responsibilities, respectively of the Contractor and EC. Security requirements are fully elaborated in **ANNEX A – APPENDIX E.9 – SECURITY REQUIREMENTS**. If there is any conflict between this section and the **ANNEX A – APPENDIX E.9 – SECURITY REQUIREMENTS, ANNEX A – APPENDIX E.9 – SECURITY REQUIREMENTS** takes precedence.

**Table 21 - IT Life Cycle and Operations – Service Delivery: Security**

Security Roles and Responsibilities	Contractor	EC
Define Security requirements, standards, process, and policies and procedures including regulatory requirements.	I	R
Assist in developing Security standards, policies and procedures including industry best practices.	R	A
Develop, document, deliver and maintain E-Poll Solution requirements standards, process and procedures and policies which are compliant with <b>ANNEX A – APPENDIX E.9 – SECURITY REQUIREMENTS</b> .	R	A
Review and approve Security requirements, standards, procedures and policies including regulatory requirements.	I	R
Remain up to date with current Security trends, threats, common exploits and security policies and procedures and best practices.	R	A
Provide an Information Security Advisor that will be the direct liaison with EC for Security requirements.	R	A
Conduct risk assessments to identify control or Security gaps.	C	R
Provide Security plan and IT infrastructure based on <b>ANNEX A – APPENDIX E.9 – SECURITY REQUIREMENTS</b> .	R	A
Review and approve Security plans.	I	R
Implement Security plans consistent with <b>ANNEX A – APPENDIX E.9 – SECURITY REQUIREMENTS</b> and industry standards in Contractor facilities (e.g., ISO 27001, COBIT).	R	A

<b>Security Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Establish access profiles and policies for adding, changing, enabling/disabling and deleting log on access of EC employees, agents and sub-contractors.	I	R
Perform Security level access changes as detailed in profiles and policies for all Services Towers.	R	A
Provide and support Software as a Service (SaaS) Security analysis and monitoring products into EC's system and Network infrastructure.	R	A
Report and Resolve Security Incidents to EC per EC policies.	R	A
Review all Security patches relevant to the IT environment and classify the need and speed in which the Security patches should be installed as defined by Security policies and Change Management.	R	A
Install Security patches per EC's Change Management process and procedures.	R	A
Maintain all documentation required for Security assessments, audits and internal control and control testing.	R	A
Perform periodic Security audits.	I	R
Allow Third Party Security audits.	R	A
Provide EC access to Contractor security reporting and monitoring systems and data.	R	A
Participate in the EC Security Assessment and Authorization (SA&A) program as it relates to the E-Poll Solution.	R	A
As part of EC's SA&A program, develop, document, deliver and maintain an E-Poll Solution tailored Security Control Profile (SCP).	R	A
As part of EC's SA&A program, document, deliver and maintain the E-Poll Solution Concept of Operations (ConOps).	R	A
As part of EC's SA&A program, develop, document, deliver and maintain the Architecture / High-Level Design with IT Security Controls	R	A
As part of EC's SA&A program, develop, document, deliver and maintain the E-Poll Solution Detailed Design Specification (DDS) with IT Security Controls.	R	A
As part of EC's SA&A program, develop, document, deliver and maintain the Technical Vulnerability Assessment (VA) and Penetration Testing (PenTest) Report.	R	A
As part of EC's SA&A program, develop, document, deliver and maintain the Business Continuity / Disaster Recovery Plan (BCP/DRP).	R	A
As part of EC's SA&A program, deliver 3rd Party SA&A Compliance Specialist reports on the SA&A compliance.	R	A
As part of EC's SA&A program, develop, document, deliver and maintain the Security Requirements Traceability Matrix (SRTM) with SA&A Evidence Package.	R	A

**39.03. Security Operations Centre**

The Contractor must provide a Security Operations Centre (SOC) with the infrastructure and resources required for the centralized monitoring and resolution of EC E-Poll Solution Security Incidents.

The Security Operations Centre (SOC) must:

- a. coordinate Security Incident response in close coordination with EC;
- b. include a unique and dedicated telephone number, answered using the Official languages of Canada (French and English) as requested by the caller, available:
  - i. during Electoral Events, 24 hours per day, 7 days per week
  - ii. outside Electoral Events Calendars, on Canadian (Quebec) business days between 8:00am and 4:00pm EST;
- c. act as a point of contact for communications with EC representatives for security incidents;
- d. operate independently of all other components of the E-Poll Solution services; and
- e. notify EC within the time frames below, if Contractor SOC is not available ,providing a contact name that EC can communicate with as necessary during the Contractor SOC outage:
  - i. during Electoral Events, within 15 minutes, or
  - ii. outside Electoral Events Calendars, within one business day.

The SOC must coordinate with EC's IT Security office for activities that include: integration of processes; oversight; Security Incident handling and response; and auditing.

The SOC must accept emails from EC authorized users to a Contractor provided mailbox with an auto-reply to confirm receipt of the email. The SOC personnel must acknowledge receipt of emails received:

- a. during Electoral Events, within 15 minutes of receiving the email 24 hours per day, 7 days per week, or
- b. outside Electoral Events Calendars, within one business day of receiving the email.

The SOC must authenticate the identity of the requester using a process approved by EC.

#### **39.04. Identity and Access Management**

Identity and Access Management (IAM) Services are the activities and deliverables that establish a unique identity for individuals and associate their established identity with user rights and privileges. It is an enterprise business strategy that governs the definition, storage, use and management of identities. The solution integrates business processes and

technologies to authenticate, authorize provision and de-provision user access rights for resources across the enterprise.

The following table identifies the Identity and Access Management roles and responsibilities, respectively of the Contractor and EC. These responsibilities pertain to the Contractor Central Server and to E-Poll Devices where applicable.

**Table 22 - IT Life Cycle and Operations – Service Support: Identity and Access Management**

<b>Identity and Access Management Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Support provisioning/de-provisioning of accounts for EC End Users (ECHQ, EO and RO), service and system accounts as per EC policies and procedures.	R	A
Support provisioning/de-provisioning as currently defined.	R	A
Provide account re-validation (for example annual account attestation) and/or job role change process according to defined standards (Contractor Central Server only).	R	A
Maintain workflow processes to support multiple approvers, as currently defined by EC system with email notification used as a part of the workflow process.	R	A
Provide reporting on all access assigned to End Users, service and system accounts.	R	A
Provide ability to de-provision all access as defined in the Operations and Procedures Manual (automatically via integration with EC systems or manually).	R	A
Provide reporting capabilities to support audit and compliance requirements (ability to audit the requests and approvals).	R	A
Enable requestor to track their requests and/or approvals.	R	A
Support delegation of approvals.	R	A
Synchronize password resets with all provisioned end points.	R	A
Support Single Sign-On connections including application and server infrastructure support and maintenance.	R	A
Support Privileged Identity Management implementation, including application and server infrastructure support and maintenance.	R	A

**39.05. Capacity Management**

Capacity Management Services are the activities and deliverables associated with ensuring that the capacity of the services matches the evolving demands of EC business in the most cost-effective and timely manner.

An E-Poll Solution capacity challenge may arise from an uneven distribution of E-Poll Device access to the Contractor Central Server. It is possible, for example, that devices from many Polling Places will only be able to connect after closing time for the Polling Day. A surge of connected devices can potentially take place when a large number of these devices suddenly obtain connectivity. The Contractor should be mindful that nearly two-thirds of Canadian Electors live in the Eastern Time zone.



Another E-Poll Solution capacity challenge that should be considered is that large batch operations against the List of Electors at EC may create surges in data available for download to field devices.

The following table identifies the Capacity Management roles and responsibilities, respectively of the Contractor and EC.

**Table 23 - IT Life Cycle and Operations Service delivery: Capacity Management**

<b>Capacity Management Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Define Capacity Management requirements (SLRs) and policies.	I	R
Develop, document, deliver and maintain Capacity Management procedures that meet requirements and adhere to defined policies.	R	A
Review and approve Capacity Management process and procedures.	I	R
Establish a comprehensive Capacity Management planning process.	R	A
Review and approve Capacity Management planning process.	I	R
Define, develop and implement tools that allow for the effective capacity monitoring/trending of IT infrastructure, applications and IT components.	R	A
Identify future business requirements that will alter capacity requirements.	I	R
Develop and maintain a capacity plan.	R	A
Develop and implement capacity models to validate the capacity plan.	R	A
Participate in capacity planning activities where applicable.	C	R
Assess capacity impacts when adding, removing or modifying applications and infrastructure components.	R	A
Continually monitor IT resource usage to enable proactive identification of capacity and performance issues.	R	A
Capture and deliver trending information and forecast future EC capacity requirements based on EC defined thresholds.	R	A
Assess Incidents/Problems related to capacity and provide recommendations for resolution.	R	A
Recommend changes to capacity to improve service performance.	R	A
Assess impact/risk and cost of capacity changes.	R	A
Approve capacity related recommendations.	I	R
Maintain capacity levels to optimize use of existing IT resources and minimize EC costs to deliver Services at agreed to SLAs.	R	A
Ensure adequate capacity exists within the IT environment to meet SLA requirements taking into account daily, weekly and seasonal variations in capacity demands.	R	A
Validate Asset utilization and capital efficiency.	C	R

**39.06. Performance Management**

Performance Management Services are the activities and deliverables associated with managing and tuning Service components for optimal performance.

The following table identifies the Performance Management roles and responsibilities, respectively of the Contractor and EC.

**Table 24 - Performance Management Roles and Responsibilities**

<b>Performance Management Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Define Performance Management requirements and policies	C	R
Develop, document and maintain in the Standards, Process and Procedures Manual Performance Management procedures that meet requirements and adhere to defined policies	R	A
Review and approve Performance Management procedures	I	R
Perform service component tuning to maintain optimum performance in accordance with Change Management procedures	R	A
Manage Service component resources (e.g., devices and traffic) to meet defined Availability and performance SLRs	R	A
Provide monitoring and reporting of Service component performance, utilization and efficiency per ANNEX A – APPENDIX I.4 – Product Performance Management & Metrics	R	A
Proactively evaluate, identify and recommend configurations or changes to configurations that will enhance performance	R	A
Conduct trending analysis to recommend changes to improve the performance per ANNEX A – APPENDIX I.4 – Product Performance Management & Metrics	R	A
Develop and deliver improvement plans as required to meet SLAs per ANNEX A – APPENDIX I.4 – Product Performance Management & Metrics	R	A
Review and approve improvement plans	I	R

**39.07. Backup and Recovery**

Backup and Recovery Services are the activities and deliverables associated with providing ongoing Backup and Recovery capabilities according to EC schedules and requirements. The Contractor must demonstrate that it will consistently meet or exceed EC's ongoing Backup and Recovery requirements. The SCP also defines controls in the Audit (AU) and Contingency Planning (CP) families which should be incorporated and adhered to.

The following table identifies Backup and Recovery roles and responsibilities, respectively of the Contractor and EC.

**Table 25 - IT Life Cycle and operations Service Delivery: Backup and Recovery**

<b>Backup and Recovery Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Define Backup and Recovery schedules, requirements and policies.	C	R
Recommend best practices for Backup and Recovery Services strategies, policies, and process and procedures.	R	A
Develop, document, deliver and maintain Backup and Recovery schedules and procedures that adhere to EC requirements and policies.	R	A
Coordinate the Backup and Recovery Standards with EC Security.	R	A
Review and approve Backup and Recovery schedules and process and procedures.	C	R
Define Backup and Recovery Monitoring and Reporting requirements and policies.	C	R
Manage backup media inventory (tape, disk, optical and other media type) including the ordering and distribution of media.	R	A
Perform service component backups and associated rotation of media as required.	R	A
Identify and establish a secure off-site location for data media.	R	A
Archive data media at a secure off-site location.	R	A
Ensure ongoing capability to recover archived data from media as specified (backward compatibility of newer backup equipment or maintaining equipment in operation as of the Effective Date) by using EC operated Hardware and Software. The Contractor must ensure that data that is written on Contractor provided equipment will be readable throughout the term of the Contract.	R	A
Test backup media to ensure incremental and full recovery of data is possible and ensure Service component integrity, as required or requested by EC.	R	A
Recover files, file system or other data required from backup media, as required or requested by EC.	R	A
Provide recovery and backup requirements and updates as they change.	I	R
Provide EC access to backup and recovery reporting and monitoring systems and data.	R	A

**39.08. Service Continuity and Disaster Recovery (DR)**

Service Continuity and Disaster Recovery (DR) Services are the activities and deliverables associated with providing such Services for the E-Poll Solution, including associated infrastructure (e.g., CPU, servers, network, data and output devices, End User devices) and services (e.g. Service Desk). The Contractor must demonstrate that it will consistently meet or exceed EC's Service Continuity and DR Services requirements as well as the controls related to the Contingency Planning and Incident Response sections of the SCP.

Service Continuity and Disaster Recovery (DR) Services, in the context of this document, is the capability of Contractor to support EC's continued delivery of successful polling services, using the E-Poll Solution at the polls, following a disruptive incident.

Running successful Electoral Events is the primary mandate of EC. As such, the Contractor must provide clear and reliable technology contingency solutions to ensure business continuity using technology at the polls. Contingency planning must cover the Contractor’s Polling Place E-Poll Devices, the Contractor Central Server infrastructure, RO office infrastructure, and communication among them. This should be reflected in the Security Incident Response plan, as an availability emergency.

Additional, and separate, contingency planning must cover communication between the Contractor Central Server and EC’s data centre.

Contingency planning must:

1. Identify internal and external vulnerabilities and essential functions;
2. Create a detailed plan to address each vulnerability and restore respective services;
3. Describe back-up strategies for respective components;
4. Provide recovery objectives, restoration priorities, and metrics;
5. Be coordinated and communicated with all parties involved in supporting each plan;
6. Provide resource management details;
7. Provide crisis communications details;
8. Include success and acceptance criteria;
9. Identify individual personnel responsibilities; and
10. Be periodically reviewed and improved as agreed to with EC.

The following table identifies Service Continuity and Disaster Recovery (DR) Services roles and responsibilities, respectively of the Contractor and EC.

**Table 26 - IT Life Cycle and operations Service Delivery: Service Continuity & Disaster Recovery**

<b>Service Continuity &amp; Disaster Recovery Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Define Disaster Recovery Services strategy, requirements and policies.	I	R
Recommend best practices for Disaster Recovery Services strategies, policies, process and procedures.	R	A
Document and deliver Disaster Recovery Services process and procedures that adhere to EC requirements and policies.	R	A
Review and approve Disaster Recovery Services procedures.	I	R
As needed, assist EC in other IT continuity and emergency management activities.	R	A
Develop and maintain a detailed DR plan to meet Disaster Recovery requirements. Plan must include plans for data, backups, storage management and contingency operations that provide for recovering EC’s systems within established recovery requirement time frames after a disaster affects EC’s use of the Services.	R	A
Define data (file system, database, flat files, etc.) replication, backup and retention requirements.	I	R

Service Continuity & Disaster Recovery Roles and Responsibilities	Contractor	EC
Establish processes to ensure DR plans are kept up to date and reflect Changes in EC environment.	R	A
Establish procedures to ensure the impact to the DR plans are reviewed by the Change Management process.	R	A
Review and approve DR plans.	I	R
Establish DR test requirements.	C	R
Perform scheduled DR tests per EC policies.	R	A
Coordinate involvement of users for DR testing.	I	R
Participate in DR tests.	C	R
Track and report DR test results to EC.	R	A
Review and approve DR testing results.	I	R
Develop action plan to address DR testing results.	R	A
Review and approve DR testing action plan.	I	R
Implement action plan and provide ongoing status until completion.	R	A
Initiate the DR plan in the event of an EC DR situation per the DR policies and procedures.	I	R
Initiate the DR plan in the event of a Contractor DR situation and notify EC per DR policies and procedures.	R	A
Coordinate with EC during a Contractor DR situation per DR policies and procedures.	R	A
Provide EC Disaster Recovery Reports.	R	A

### 39.09. Incident Management

Incident Management Services are the activities and deliverables associated with restoring normal service operation as quickly as possible and minimizing the adverse impact on business operations, thus ensuring that the best possible levels of service quality and availability are maintained. While the Incident Management processes apply to Level 1, Level 2 and Level 3 support groups, EC's Level 1 support — normally at the EC Service Desk — is responsible for interfacing with EOs, and will record and track the Incident.

For the purposes of the E-Poll solution, Level 1 support consists of support pertaining to the proper use of E-Poll Solution components – i.e. Level 1 support consists in supporting users in the knowledge and skills necessary for proper use of E-Poll solution components. All other incidents are the responsibility of the Contractor (Level 2 and Level 3 support) and include all issues pertaining to the E-Poll Solution and any component not operating according to its specifications for its intended use.

EC will provide a single number for all EC election field personnel to use. EC will triage calls and E-Poll Solution issues which cannot be resolved by Level 1 support, will be escalated to the Contractor Help Desk for Level 2 and Level 3 support (Contractor to define separation of duties

between Level 2 and Level 3 support). The Contractor is responsible for tracking and resolving incidents escalated to Level 2 and Level 3 support groups, to ensure knowledge capture and transfer regarding incident resolution procedures from EC's Level 1 Service Desk to support the objective of increasing the number of incidents directly resolved by Level 1 support.

Incidents will be categorized according to severity from Level 1 to Level 4 in accordance with **Table 33 - Severity and Response Levels**.

The following table identifies the Incident Management roles and responsibilities, respectively of the Contractor and EC.

**Table 27 - IT Life Cycle and Operations – Service Support: Incident Management**

<b>Service Support: Incident Management Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Establish criteria for Incident Management support requirements, including equipment and services to be covered, severity levels, definitions and characteristics, incident classification prioritization schema, and escalation requirements.	C	R
Develop, document, deliver and maintain Incident Management policies, process and procedures that support EC's Incident Management support requirements.	R	A
Review and approve Incident Management policies and procedures.	I	R
Provide, maintain, and manage an Incident Management system and knowledge management database, including all Equipment, Software, databases, automated monitoring tools, and management and reporting tools, which are acceptable to EC.	R	A
Provide unrestricted read-access by EC authorized staff and other personnel to all current and historical Incident records and knowledgebase data.	R	A
Monitor the Incident Management system for automatically generated and logged Incident alerts and events.	I	R
Resolve incidents on the first call in accordance with the Operations and Procedures Manual, knowledge database documents, and configuration database(s).	C	R
Log all calls/queries into the Service Desk.	I	R
Identify and classify Incidents to a severity level and handle according to agreed-upon Incident response procedures.	I	R
Diagnose and resolve incidents. Where possible, implement appropriate corrective actions for known errors (e.g., workarounds for known unresolved Problems).	I	R
Escalate incidents to the appropriate next level service group within Contractor, EC, or a sub-contracted service as soon as it is clear that the incident cannot be resolved without additional assistance or as required to comply with service level response times.	I	R
Monitor and track incident resolution progress through to final closure and record/update incident record status as appropriate.	R	A
Monitor and track Level 2 and Level 3 incident resolution progress through to final closure and record/update incident record status as appropriate.	R	A

Service Support: Incident Management Roles and Responsibilities	Contractor	EC
Provide expert functional and process assistance for in-scope applications at Level 1 and escalate to Level 2 or 3 resources as required.	I	R
Provide Level 1 assistance to inquiries on the features, functions and usage of Equipment and Software for all in-scope Equipment and Software.	I	R
Provide Level 1 support for applications Software on the supported applications. Level 1 support is limited to approved scripts.	I	R
Provide training and Level 1 scripts for the Service Desk for applications Software on the approved list.	C	R
Provide Level 2 and Level 3 support.	R	A
Verify that all records (e.g., inventory, asset and configuration management records) are updated to reflect completed/resolved incident.	R	A
Assist End Users with questions relating to functionality and use of in-scope Equipment and Software.	C	R
Document solutions to resolved incidents in the central knowledgebase. Accurately update all information pertinent to trouble ticket including general verbiage, codes, etc.	R	A
Notify designated EC personnel of all Severity 1 and Severity 2 incidents within the designated timeframe.	R	A
Maintain current and historical records of all Level 2 and Level 3 incidents and the resolution of those calls for the life of the Contract and provide reporting and trend capabilities.	R	A
Troubleshoot, diagnose and resolve incidents for E-Poll Solution components.	R	A
Provide dispatch services for E-Poll Solution components and repair/replace as required per SLAs.	R	A
For all Level 2 and Level 3 incidents, provide end-to-end Incident Identification, Escalation and Resolution Management; and a Closure Process including the management of those tickets escalated to sub-contractors.	R	A
Determine whether a problem report should be opened to address an incident.	R	A
Track ongoing status of any incident and their corresponding problem record to ensure that identified problems are addressed and resolved.	R	A
Ensure incident resolution activities conform to defined Change Management procedures set forth in the Process and Procedures Manual.	R	A
Coordinate and be accountable for incident resolution across all in-scope IT service areas with EC and sub-contractors (e.g., public carriers, internet service providers, etc.).	R	A
Periodically review the status of open, unresolved Incidents and related problems and the progress being made in addressing problems.	R	A
Lead Problem Management review sessions.	R	A
Participate in Problem Management review sessions as appropriate.	C	R
Conduct incident review sessions and provide listing and status of same categorized by Incident Severity impact.	R	A

<b>Service Support: Incident Management Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Participate in Incident Management review sessions.	C	R
Coordinate with EC and sub-contractor Level 2 and Level 3 support groups to acquire and transfer knowledge on incident and problem resolutions and record this knowledge gained into the knowledgebase to facilitate increased ability for EC's Level 1 Service Desk in providing first call resolution.	R	A
Conduct follow up with End Users who reported the Incident to verify that the Incident was resolved to the End Users' satisfaction.	I	R
Close out incidents that were resolved satisfactorily.	I	R
Provide Level 1 Incident Management reporting as required.	C	R
Provide Level 2 and 3 Incident Management reporting as required.	R	C

### 39.10. Problem Management Services

Problem Management Services are the activities and deliverables to minimize the adverse impact of incidents and problems on the business, caused by errors within the IT Infrastructure, and to prevent recurrence of incidents related to these errors by determining the unknown underlying cause (e.g., root cause) of one or more incidents, ensuring that actions are initiated to improve or correct the situation.

The Contractor must provide Problem Management Services for all identified problems that are determined to be related to IT systems and services under the control of the Contractor. The Contractor must also provide coordination and assistance to EC and EC's Third Party Contractors such as those that host EC's data centre in performing their Problem Management process.

The following table identifies the Problem Management roles and responsibilities, respectively of the Contractor and EC.

**Table 28 - IT Life Cycle and Operations – Service Support: Problem Management**

<b>Problem Management Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Develop requirements and policies for Problem Management (e.g., events that trigger a Root Cause Analysis (RCA), categorization and prioritization schema, etc.).	C	R
Participate in developing Problem Management requirements and policies.	R	A
Develop and implement appropriate process and procedures and methodologies that support EC approved Problem Management requirements and policies that comply with EC requirements.	R	A
Establish and maintain a Problem Management knowledgebase that is accessible to EC where information about Problems, Root Cause, Known Errors, Workarounds and problem resolution actions are recorded and tracked. This knowledgebase can be the same knowledgebase as used by Incident Management.	R	A



<b>Problem Management Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Provide unrestricted read-access by EC authorized staff and other EC designated personnel to all current and historical Problem Management records and knowledgebase data.	R	A
Ensure Problem Management activities conform to defined Change Management procedures set forth in the Standards and Operations Procedures.	R	A
Coordinate with appropriate Incident Management teams and take ownership of Problem Management activities of all problems determined to reside in the Contractor's service area of responsibility (e.g., detection, logging, root cause analysis, etc.).	R	A
Coordinate, escalate and track Problem Management activities within EC and sub-contractors related to problems determined to reside in all other IT infrastructure areas outside of the Services.	R	A
Flag all incidents that require further root cause analysis to be conducted per the agreed to procedures.	R	A
Ensure that recurring problems that meet defined criteria are reviewed using root cause analysis procedures.	R	A
Conduct proactive trend analysis of incidents and problems, and other data elements to identify recurring situations that are or may be indicative of future problems and points of failure.	R	A
Track and report on problems and trends or failures and identify associated consequences of problems.	R	A
Develop and recommend corrective actions or solutions to address recurring incidents and problems, as well as mitigation strategies and actions to take to avert potential problems identified through trend analysis.	R	A
Identify, develop, document, and recommend appropriate Workarounds for known errors of unresolved problems and notify Incident Management and all other appropriate stakeholders of its availability if approved. Document the workaround in the knowledgebase.	R	A
Review and approve workarounds for implementation, as appropriate.	I	R
Coordinate and monitor status of root cause analysis activities performed by EC and the Contractor.	R	A
Document and update Problem Management knowledgebase with information regarding problem resolution actions, activities and status (e.g., root cause, known errors, workarounds, etc.) and notify EC of availability of information.	R	A
Coordinate with EC to ensure that knowledge on Problems related to other IT service areas is captured and entered into a centralized Problem Management knowledgebase.	R	A
Ensure problem resolution activities conform to defined Change Management procedures set forth in the Process and Procedures Manual.	R	A
Provide status reports detailing the root cause and procedure for correcting recurring, Incidents until closure as determined by EC.	R	A
Conduct Problem Management review meetings and provide listing and status of same categorized by Problem impact.	R	A

<b>Problem Management Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Participate in Problem Management review meetings and review and approve recommendations for actions, where appropriate.	C	R
Periodically review the state of open Incidents and related Problems and the progress being made in addressing Problems.	R	A
Participate in and review and approve as appropriate all Problem Management generated Request for Change (RFCs) as part of the Change Management process.	C	R
Create Request for Change (RFC) documentation with recommended corrective actions to be taken to resolve a problem and submit to Change Management for review and approval.	R	A
Conduct monthly problem management proactive review sessions.	R	A
Provide Problem Management reporting as required.	R	A

### 39.11. Operations and Administration

Operations and Administration Services are the activities and deliverables associated with providing a stable IT Infrastructure, and with effectively and efficiently performing procedures to ensure IT services meet SLA targets and requirements.

The following table identifies the Operations and Administration roles and responsibilities, respectively of the Contractor and EC.

**Table 29 - IT Life Cycle and Operations – Operations and Administration**

<b>Operations and Administration Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Provide Operations and Administration requirements and policies, including schedules for the operation of EC Service components.	C	R
Develop, document, deliver and maintain Operations and Administration Procedures that meet requirements and adhere to defined policies.	R	A
Develop operational documentation (i.e., Run Books, Contact Lists, Operations scripts, etc.) that meets EC requirements.	R	A
Review and approve the Operations and Administration Procedures.	I	R
Identify Enterprise System Management tools to monitor the IT infrastructure and EC applications.	R	A
Coordinate with EC to deploy enterprise Service component management tools to monitor the IT infrastructure and EC applications.	R	A
Install and configure enterprise Service component management tools in such a fashion that problems, issues and events are proactively identified, reported and resolved according to prescribed SLAs.	R	A
Perform event management monitoring of IT Services to detect abnormal conditions or alarms, log abnormal conditions, analyze the condition and take corrective action.	R	A
Manage Equipment, Software, peripherals, Services and spare parts to meet SLAs, minimize downtime and minimize EC resource requirements.	R	A

<b>Operations and Administration Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Manage and coordinate sub-contractors in order to meet Service and SLA requirements.	R	A
Develop and provide operational reports and dashboards (e.g., daily, weekly, monthly) that provide status of operational activities, production issues and key operational metrics.	R	A
Review and approve operational reports.	I	R
Audit Operations and Administration policies for compliance with EC policies.	C	R
Provide EC with a copy of or access to any Contract supplied documentation and data (including updates thereto).	R	A

### 39.12. Maintenance

Maintenance Services are the activities and deliverables associated with the maintenance and repair of hardware, software and networks to include "break/fix" Services. Installed platform and product version levels are not to be more than one version behind the current commercial release, unless coordinated with EC architectural standards committee. All maintenance must be completed adhering to the Maintenance (MA) family of SCP controls found in **ANNEX A – APPENDIX E.9 – SECURITY REQUIREMENTS**.

The following table identifies the Maintenance roles and responsibilities, respectively of the Contractor and EC.

**Table 30 - IT Life Cycle and Operations – Maintenance**

<b>Maintenance Roles and Responsibilities</b>	<b>Contractor</b>	<b>EC</b>
Define Maintenance standards, requirements and policies.	C	R
Develop, document, deliver and maintain Maintenance standards, procedures that meet requirements and adhere to defined policies.	R	A
Develop Maintenance schedules.	R	A
Review and approve Maintenance procedures and schedules.	I	R
Ensure appropriate Maintenance coverage for all Service components.	R	A
Perform diagnostics and maintenance on service components including equipment, software, peripherals, networks and special purpose devices as appropriate.	R	A
Install manufacturer, service packs, firmware and Software maintenance releases, etc.	R	A
Perform product patch, service pack installation or upgrades to the current installed version where applicable.	R	A
Perform Maintenance related Software distribution and version control, both electronic and manual.	R	A
Replace defective parts including preventive maintenance.	R	A
Conduct Maintenance and parts management and monitoring during warranty and off-warranty periods.	R	A

Maintenance Roles and Responsibilities	Contractor	EC
Perform Maintenance Services activities consistent with EC Change Management procedures.	R	A

### 39.13. Technology Refreshment and Replenishment

Technology Refreshment and Replenishment (TR&R) Services are the activities and deliverables associated with modernizing the IT environment on a continual basis, to ensure that the E-Poll Solution components stay current with evolving industry standard technology platforms.

The following table identifies the TR&R roles and responsibilities, respectively of the Contractor and EC.

**Table 31 - IT Life Cycle and Operations – Technology Refreshment and Replenishment**

Technology Refreshment and Replenishment Roles and Responsibilities	Contractor	EC
Recommend TR&R lifecycle management policies, procedures and plans appropriate for support of EC business requirements.	R	A
Develop, document, deliver and maintain TR&R procedures and develop TR&R plans that meet requirements, adhere to defined policies and Change and Release Management processes.	R	A
Review and approve TR&R policies, procedures and plans.	I	R
Perform the necessary tasks required to fulfill the TR&R plans.	R	A
Provide management reports on the progress of the TR&R plans.	R	A
Periodically review the approved TR&R implementation plans to ensure they properly support EC business requirements.	I	R

### 39.14. Service Level Management

Service Level Monitoring and Reporting Services are the activities and deliverables associated with the monitoring and reporting Service Levels with respect to Service Level Requirements (SLRs) and the Service Level Agreement (SLA).

The following table identifies the Service Level Management roles and responsibilities, respectively of the Contractor and EC.

**Table 32 - Service Level Management**

Service Level Monitoring Roles and Responsibilities	Contractor	EC
Define Service Level Requirements (SLR)	I	R
Define Service Level Agreement (SLA)	R	A
Define Service Level Monitoring and Reporting requirements and policies	I	R

Service Level Monitoring Roles and Responsibilities	Contractor	EC
Develop, document and maintain in the Standards, Process and Procedures Manual, Service Level Monitoring and Reporting procedures which enable the Contractor to demonstrate that the Contractor is in Compliance with the EC approved Service Level Agreement.	R	A
Review and approve Service Level Monitoring and Reporting procedures	I	R
Report on SLA performance and improvement results	R	A
Coordinate SLA monitoring and reporting with EC representatives	R	A
Measure, analyze and provide management reports on performance relative to SLAs	R	A
Conduct SLA Improvement Meetings to review SLAs and recommendations for improvements	R	A
Review and approve SLA improvement plans	I	R
Implement SLA improvement plans	R	A
Review and approve SLA metrics and performance reports	I	R
Provide EC with access to performance and SLA reporting and monitoring system and data	R	A

## **ANNEX A – APPENDIX I.3 – Contractor’s Service Desk**

### **40. SERVICE DESK**

#### **40.01. Service Desk Objectives**

**40.01.01** The objective of the E-Poll Service Desk is to support the E-Poll Solution by performing various supporting activities such as:

- a. act as a line support for incidents, requests and general communication pertaining to all E-Poll Solution components;
- b. restore ‘normal service operation’ as quickly as possible in the case of disruption;
- c. assist other EC IT functions by escalating incidents and requests using defined procedures;
- d. support monitoring and diagnostic activities in response to infrastructure incidents for:
  - i. Hardware
  - ii. E-Poll Solution software
  - iii. Network connectivity and response time; and
- e. respond to application incidents and provide “how to” support.

**40.01.02** The Contractor must provide all necessary resources and staff to operate the Service Desk. The Contractor must have support processes defined and practiced: including incident management, problem management, change management and escalation process.

#### **40.02. Status Response Requirements**

**40.02.01** The Contractor shall have a Service Desk (the “Service Desk”) accessible via a toll-free number, e-mail and website using a contact method, to respond to incidents and service requests (the “Support Request”). The Technical Authority will provide the Contractor with a list of up to 1000 users (RO and AARO staff, and ECHQ users) authorized to issue Support Requests.

**40.02.02** The Contractor must ensure that the Service Desk can respond to networking, hardware, software, database and security management Support Requests pertaining to the Contractor Central Server, all RO (and AARO) office components, E-Poll Devices and procedures which constitute the E-Poll Solution.

- 40.02.03** The Contractor must initiate a Support Request through the Service Desk in accordance with Subsection 40.02.01 when it identifies any failure or deficiency, and treat such Support Request in the same manner as if it would have been initiated by EC. The Contractor must send an acknowledgment to the Technical Authority within 5 minutes of initiating the Support Request.
- 40.02.04** Subject to Subsection 40.02.03, within 5 minutes of receipt of any Support Request, the Contractor must provide an acknowledgement of such request to the authorized user who issued the Support Request.
- 40.02.05** The Contractor must provide a trouble ticket system to track Support Requests. The trouble ticket system must have the following minimum functionality:
- a. ability to provide:
    - i. a unique tracking number;
    - ii. date and time of Support Request;
    - iii. name of individual submitting the Support Request;
    - iv. name of individual logging the request;
    - v. severity level of the Support Request in accordance with the Contractor's procedures as agreed with the Technical Authority;
    - vi. provide a description of the problem;
    - vii. detail the affected services;
    - viii. the duration of outage, if any;
    - ix. the time it took to resolve the problem;
    - x. comments;
    - xi. indicate the time and date the problem was resolved; and
    - xii. an automatic notification via e-mail to the authorized user who issued the Support Request when a ticket is updated, modified or escalated;
  - b. ability to generate a monthly report of all trouble tickets created during the month, which includes the information set out in Paragraph 40.02.05 a; and
  - c. ability to provide additional reports upon the request of the Technical Authority, within five (5) calendar days of such request.

**40.03. Response Times**

- 40.03.01** The Contractor must commence working on the resolution of a Support Request within the applicable technical response time referred to within the severity 1 and severity 2 level:

- a. During Electoral Events and Key testing phases, the Contractor must work on the resolution of such Support Requests non-stop, 24 hours by 7 days a week.
- b. Outside Electoral Events Calendars, the Contractor must work on the resolution of such Support Requests non-stop during normal working hours during Business Days.

**40.03.02** For Support Requests within the severity 3 and severity 4 level:

- a. During Electoral Events, the Contractor must work on the resolution of such Support Requests non-stop, 24 hours by 7 days a week.
- b. During Key testing phases, such as integrated testing or simulations, the Contractor must work on the resolution of such Support Requests for 12 hours a day by 7 days a week.
- c. Outside Electoral Events Calendars, the Contractor must work on the resolution of such Support Requests non-stop during normal working hours during Business Days.



**Table 33 - Severity and Response Levels**

Severity Level	Severity Definition	Service Level Electoral Event Context	Status Update Time	Incident Resolution Time
<b>Severity Level 1:                      Emergency/Urgent                      – Critical Business                      Impact</b>	The incident has caused a complete and immediate work stoppage affecting a critical function or critical infrastructure component, and a primary business process or a broad group of users (an entire Electoral District or region). No workaround available. Examples: <ul style="list-style-type: none"> <li>▪ Major application problem (e.g., failure of Contractor Central Server, widespread device problem etc.)</li> <li>▪ Security violation</li> </ul>	<b>Electoral Event                      – Polling Days</b>	Every 15 minutes	15 minutes
		<b>Electoral Event                      – Non-Polling Days                      and Integrated Testing or Simulations</b>	Every 30 minutes	1 hour
		<b>Outside Electoral Events Calendars</b>	4 hours	1 business day
<b>Severity Level 2:                      High – Major                      Business Impact</b>	A business process is affected in such a way that business functions are severely degraded, multiple users are impacted, a key authorized user is affected, or a critical function is operating a significantly reduced capacity or functionality. A workaround may be available, but is not easily sustainable. Examples: <ul style="list-style-type: none"> <li>▪ Major data/database or application problem</li> <li>▪ Security incursion on a non-critical system</li> </ul>	<b>Electoral Event                      – Polling Days</b>	Every 30 minutes	1 hour
		<b>Electoral Event                      – Non-Polling Days                      and Integrated Testing or Simulations</b>	4 hours	8 hours
		<b>Outside Electoral Events Calendars</b>	Every business day	1 business day

Severity Level	Severity Definition	Service Level Electoral Event Context	Status Update Time	Incident Resolution Time
<b>Severity Level 3: Medium – Moderate Business Impact</b>	A business process is affected in such a way that certain functions are unavailable to end users or a system and/or service is degraded. A workaround may be available. Examples: <ul style="list-style-type: none"> <li>▪ Telecommunication problem</li> <li>▪ Limited end-user device problem (e.g., hardware, software)</li> </ul>	<b>Electoral Event – Polling Days</b>	Every hour	2 hours
		<b>Electoral Event – Non-Polling Days and Integrated Testing or Simulations</b>	Every 8 hours	1 calendar day
		<b>Outside Electoral Events Calendars</b>	Every business day	1 business day
<b>Severity Level 4: Low –Minimal Business Impact</b>	An incident that has little impact on normal business processes and can be handled on a scheduled basis. A workaround is available or there is minimal negative impact on a user’s ability to perform their normal work. Example: <ul style="list-style-type: none"> <li>▪ “How to” questions</li> <li>▪ Service requests (e.g., system enhancement)</li> <li>▪ Preventative maintenance</li> </ul>	<b>Electoral Event – Polling Days</b>	Every hour	2 hours
		<b>Electoral Event – Non-Polling Days and Integrated Testing or Simulations</b>	Every 8 hours	1 calendar day
		<b>Outside Electoral Events Calendars</b>	Every 5 business days	5 business days

**40.04. Incident Resolution Time**

The Incident Resolution Time is a measure of the time required by the Contractor to resolve an Incident. Time is measured from the time of Incident receipt by the Service Desk to the time the Service Desk agent logs the final resolution activity.

#### **40.05. Service Manager**

The Contractor must provide a service manager to meet with EC's representatives during business days from 08:00 to 17:00 ET and be reachable, using communication methods as approved by EC, 24 hours per day, 7 days per week from the Notice of the Electoral Event (issue of the writ) until the pick-up of E-Poll Devices from the Offices of Returning Officers, for all Electoral Events in which the E-Poll Solution is used, for management services escalation (incidents, change requests), high priority and security incidents, service level reviews, release implementation activities, release maintenance and release window scheduling, service quality, and service reporting.

**ANNEX A – APPENDIX I.4 – Product Performance Management & Metrics**

**41. PRODUCT PERFORMANCE MANAGEMENT & METRICS**

Contractor product (including services) Performance Management Key Performance Indicators (KPIs) which will be used to evaluate performance of the Contractor's deliverables and performance of services defined under this SOW are identified in **Table 34 - Product Performance Management KPIs**. Contactor Performance Metrics must be reported by the Contractor to the Management Committee at the Frequency specified. Separate Contractor Performance Management & Metrics are identified in **Table 2 - Contractor Performance Management KPIs**.

**Table 34 - Product Performance Management KPIs**

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
<b>41.01. Product Performance Evaluation</b>							
<b>41.01.01 KPIs Availability management</b>							
a. <b>Reliability: Manage the probability that a solution or component is available.</b>							
The percentage of time that the application is	[Number of hours during the period being reported on when applications are	Tool supplied by the Contractor;	CCS	Application Availability on Polling Days	99.90%	Daily	Daily

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
available for normal business operations.	operating without any severity Level 1 or Level 2 incidents] divided by [(Total number of hours in the period) minus (number of hours of approved downtime)] multiplied by 100 = [percentage of availability of the application during such month].	automatically records date and time stamps for each activity within a process, including uptime and downtime data.	CCS	Application Availability between the issue of the writs and EC notification of event completion, excluding Polling Days	99.50%	Electoral Event	Electoral Event
			CCS	Application Availability outside Electoral Events Calendars	99.00%	Monthly	Monthly
			CCS	Application Availability of non-production instances	95.00%	Monthly	Monthly
			E-Poll Device	Application Availability on Polling Days	99.90%	Daily	Daily
The percentage of the time the Help Desk was available.	[Number of hours during the Measurement period when the Service Desk was available] divided by [ The total number of hours in the	Contractor Measured	Help Desk	Help Desk Availability during Electoral Events	99.0%	Electoral Event	Electoral Event

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
	Measurement period when the Service Desk was required to be available] multiplied by 100 = [Help Desk Availability].		Help Desk	Help Desk Availability outside Electoral Events Calendars	95.0%	Monthly	Monthly
The percentage of the time the SOC was available.	[Number of hours during the Measurement period when the SOC was available] divided by [The total number of hours in the Measurement period when the SOC was required to be available] multiplied by 100 = [SOC Availability].	Contractor Measured	SOC	SOC Availability	99.0%	Monthly	Monthly
The percentage of end-to-end (EC-CCS-ORO/available for E-Poll Device) network uptime. Measures include WAN, LAN, and VPN availability.	[(Actual Uptime during the Measurement Interval) divided by (Scheduled Hours during the Measurement Interval)] multiplied by 100] = [percentage of Availability of the Network components]	Tool supplied by the Contractor.	CCS	Network Availability on Polling Days	99.90%	Daily	Daily
			CCS	Network Availability between the issue of the writs and EC notification of event completion, excluding Polling Days	99.00%	Electoral Event	Electoral Event

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
			CCS	Network Availability outside Electoral Events Calendars	95.00%	Monthly	Monthly
			CCS	Network Availability of non-production instances	95.00%	Daily	Daily
E-Poll Device Hardware Mean Time Between Failure	[The number of device operating hours] divided by [the number of devices which failed because of a hardware failure within the device] = [E-Poll Device Hardware Mean Time Between Failure]. Where [The total number of operating hours] = [the total number of devices in use in an Electoral Event] multiplied by [the average number of EO operating hours per device per event]	EC Measured	E-Poll Device	E-Poll Device Hardware Reliability	10,000 hours	Electoral Event	Electoral Event

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
Number of CCS service disruptions	[Number of severity Level 1 or Level 2 incidents] = [Number of CCS service disruptions]	Tool supplied by the Contractor; automatically records date and time stamps for each activity within a process, including uptime and downtime data.	CCS	Number of Service disruptions during Electoral Events	0	Electoral Event	Electoral Event
			CCS	Number of Service disruptions outside Electoral Events Calendars	0	Monthly	Monthly
Average duration of CCS service disruptions	[The sum of the duration of all service disruptions during the reporting period] divided by [The number of service disruptions during the reporting period] = [Duration	Tool supplied by the Contractor; automatically records date and time	CCS	Duration of Service disruptions	15 minutes	Electoral Event	Electoral Event



Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
	of Service disruptions] Where [The duration of a service disruption] = [the length of time between the first moment when the conditions for a Severity Level 1 or Level 2 disruption are met and the last moment when the conditions for a Severity Level 1 or Level 2 disruption are met as a result of adequate resolution of the underlying problem].	stamps for each activity within a process, including uptime and downtime data.	CCS	Duration of Service disruptions	4 hours	Monthly	Monthly
b. <b>Maintainability: Manage the ability of a solution or component to be maintained in an operational state and recovered to an operational state after failure.</b>							

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
The percentage of planned maintenance actions successfully completed within the planned window.	[Number of instances of maintenance actions that require downtime that are successfully completed and adhere to the planned maintenance window and downtime schedules] divided by [Total number of maintenance actions] Multiplied by 100 = [percentage of maintenance activities that meet planned maintenance window and downtime schedule requirements]	Contractor Measured	CCS	Successful maintenance actions	100.00%	Annual	Annual

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
<b>c. Resilience: Manage the capacity of a solution to remain in an operational state despite component failures.</b>							
The percentage of Polling Places for which all required data from each E-Poll Device is accurately captured in the CCS with complete integrity, and delivered to EC at the completion of an event.	[the number of Polling Places where one or more E-Poll Devices were deployed, and where all Election data and device logs identified in the requirements from every E-Poll Device used at the Polling Place are completely and accurately uploaded to the CCS with integrity intact, and for which the data backup deliverable is delivered to EC upon completion of an Electoral Event] divided by [the number of Polling Places where one or more E-Poll Devices were deployed] = [Polling Place Record Availability]	EC Measured	E-Poll Device	Polling Place Record Availability	99.99%	Electoral Event	Electoral Event
<b>d. Security: Security refers to the confidentiality, integrity, and availability of an asset.</b>							
Number of security incidents (grouped by damage severity (High, Medium, Low) and category (confidentiality, integrity, availability))	Number of security incidents reported to, or discovered by, the Contractor SOC (grouped by damage severity (High, Medium, Low) and category (confidentiality, integrity, availability)) = [Number of Security Incidents]	Contractor Measured; Incident Management Tool	All	Number of Security Incidents	0	Monthly	Monthly

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
Number of security incidents causing service interruption or reduced availability	[Number of severity Level 1 or Level 2 incidents where the underlying problem was the consequence of a security incident] = [Number of CCS service disruptions]	Contractor Measured; Incident Management Tool	All	Number of Security-related Service Disruptions	0	Monthly	Monthly
Resolution time for security incidents causing service interruption or reduced availability	[The sum of the duration of all security-incident-related service disruptions during the reporting period] divided by [The number of security-incident-related service disruptions during the reporting period] = [Resolution Time of security-incident-related Service disruptions]Where[The duration of a service disruption] = [the length of time between the first moment when the conditions for a Severity Level 1 or Level 2 disruption are met and the last moment when the conditions for a Severity Level 1 or Level 2 disruption are met as a result of adequate resolution of the underlying problem].	Contractor Measured; Incident Management Tool	All	Resolution Time of Security Incidents	0	Monthly	Monthly

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
Number of security tests and trainings carried out and reported to EC	[The number of security tests and trainings carried out by the Contractor SOC in accordance with the Contractor's EC approved Security Plan, and reported to EC] = [Number of Security Tests]	Contractor Measured	All	Number of Security Tests	per Contractor Security Plan	Monthly	Monthly
<b>41.01.02 KPIs Capacity Management</b>							
Number of capacity incidents causing service interruption or reduced availability	[Number of Service Desk incidents related to capacity issues and logged during the Measurement Interval] = [Number Capacity-Related Service Disruptions]	Contractor Measured; Incident Management Tool	CCS	Number of Capacity-related Service Disruptions on Polling Days	0	Daily	Daily
			CCS	Number of Capacity-related Service Disruptions between the issue of the writs and EC notification of event completion, excluding Polling Days	0	Electoral Event	Electoral Event

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
			CCS	Number of Capacity-related Service Disruptions outside Electoral Events Calendars	0	Monthly	Monthly
			E-Poll Device	Number of Capacity-related Service Disruptions on Polling Days	0	Electoral Event	Electoral Event
Average duration of CCS capacity-related service disruptions	[The sum of the duration of all capacity-related service disruptions during the reporting period] divided by [The number of capacity-related service disruptions	Tool supplied by the Contractor; automatically records date and time	CCS	Duration of capacity-related Service disruptions	15 minutes	Electoral Event	Electoral Event

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
	during the reporting period] = [Duration of capacity-related Service disruptions] Where [The duration of a service disruption] = [the length of time between the first moment when the conditions for a Severity Level 1 or Level 2 disruption are met and the last moment when the conditions for a Severity Level 1 or Level 2 disruption are met as a result of adequate resolution of the underlying problem].	stamps for each activity within a process, including uptime and downtime data.	CCS	Duration of capacity-related Service disruptions	4 hours	Monthly	Monthly
The Network Performance (Latency) of end-to-end (EC-CCS-ORO/available for E-Poll Device) network.	$t_2 \text{ minus } t_1 = \text{Network Transit Delay (NTD)}$ Where: $t_1$ = the time when a packet leaves the egress premise, $t_2$ = the time when the packet arrives at the ingress premise	Tool supplied by the Contractor.	CCS	Network Performance on Polling Days	NTD < 50 ms	Daily	Daily
			CCS	Network Performance between the issue of the writs and EC notification of event completion, excluding Polling Days	NTD < 50 ms	Electoral Event	Electoral Event

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
			CCS	Network Performance outside Electoral Events Calendars	NTD < 50 ms	Monthly	Monthly
			CCS	Network Performance of non-production instances	NTD < 50 ms	Daily	Daily
The percentage of transactions that meet/exceed the minimum Response Time performance requirements of 3s.	[Number of transactions completed within the target time frame] divided by [Total number of transactions within the measurement period] multiplied by 100 = [percentage of transactions that meet response time performance requirements in such day].	Tool supplied by the Contractor.	CCS	Transaction Performance on Polling Days	99.00%	Daily	Daily
			CCS	Transaction Performance between the issue of the writs and EC notification of event completion, excluding Polling Days	99.00%	Electoral Event	Electoral Event
			CCS	Transaction Performance outside Electoral Events Calendars	95.00%	Monthly	Monthly



Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
			CCS	Transaction Performance of non-production instances	95.00%	Daily	Daily
			E-Poll Device	Transaction Performance on Polling Days	99.00%	Electoral Event	Electoral Event
<b>41.01.03 KPIs IT Service Continuity and Disaster Recovery</b>							
Duration between service interruption and restored service	[The duration of a disaster-related service disruption during an Electoral Event] = [Duration of disaster-related Service disruptions] Where [The duration of a service disruption] = [the length of time between the first moment when the conditions for a Severity Level 1 or Level 2 disruption are met and the last moment when the conditions for a Severity Level 1 or Level 2 disruption are met as a result of adequate resolution of the underlying problem].	Tool supplied by the Contractor; automatically records date and time stamps for each activity within a process, including uptime and downtime data.	CCS	Disaster Recovery Duration	0	Electoral Event	Electoral Event

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
Number of continuity tests and trainings carried out and reported to EC	[The number of disaster recovery tests and trainings carried out by the Contractor SOC in accordance with the Contractor's EC approved Disaster Recovery Plan, and reported to EC] = [Number of Disaster Practices]	Contractor Measured	All	Number of Disaster Practices	per Contractor Disaster Recovery Plan	Monthly	Monthly
<b>41.01.04 KPIs Incident &amp; Problem Management and Service Desk</b>							
Number of incidents registered by the Contractor Service Desk (grouped by category - See: Priority and Response Levels)	[The number of incidents registered by the Contractor's Service Desk] = [Number of incidents].	Contractor Measured; Incident Management Tool	All	Number of Incidents	0	Electoral Event	Electoral Event
					0	Monthly	Monthly
Number of Problems registered by Problem Management (grouped by category - See: Priority and Response Levels)	[The number of problems registered by the Contractor's Service Desk] = [Number of Problems].	Contractor Measured; Incident Management Tool	All	Number of Problems	0	Electoral Event	Electoral Event
					0	Monthly	Monthly
Number of reported Incidents	[The number of incidents registered by the Contractor's	Contractor Measured;	All	Number of Incidents per	1	Electoral Event	Electoral Event

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
linked to the same Problem after problem identification	Service Desk] divided by [The number of root cause problems registered by the Contractor's Service Desk] = [Number of Incidents per Known Problem].	Incident Management Tool		Known Problem	1	Monthly	Monthly
Number of repeated Incidents, with known resolution methods	[The number of incidents registered by the Contractor's Service Desk where the incident was resolved by providing a workaround for a known problem in the release for which a workaround has been defined.] = [Number of repeated Incidents].	Contractor Measured; Incident Management Tool	All	Number of repeated Incidents	0	Electoral Event	Electoral Event
					0	Monthly	Monthly
Percentage of Incidents resolved remotely by the Service Desk (i.e. without carrying out work at user's location)	[The number of incidents registered by the Contractor's Service Desk where the incident was resolved by the Contractor without accessing any EC workplace] divided by [the number of incidents logged by the Contractor's Service Desk] multiplied by 100 = [Incidents resolved Remotely].	Contractor Measured; Incident Management Tool	All	Incidents resolved Remotely	100.00%	Electoral Event	Electoral Event
					100.00%	Monthly	Monthly
Percentage of incidents resolved during solution	[The number of incidents registered by the Contractor's Service Desk where the	Contractor Measured; Incident	All	Resolution within SLA	100.00%	Electoral Event	Electoral Event

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
times agreed in SLA (grouped by category - See: Priority and Response Levels)	incident was resolved by the Contractor within the timeframe specified for the incident Priority and Response Level] divided by [the number of incidents logged by the Contractor's Service Desk] multiplied by 100 = [Number of Incident Escalations]	Management Tool			100.00%	Monthly	Monthly
Number of escalations for Incidents not resolved in the agreed resolution time	[The number of incidents registered by the Contractor's Service Desk where the incident was not resolved by the Contractor within the timeframe specified for the incident Priority and Response Level] = [Number of Incident Escalations]	Contractor Measured; Incident Management Tool	All	Number of Incident Escalations	0	Electoral Event	Electoral Event
					0	Monthly	Monthly
Average time taken between the time a user	[The sum of the durations measured from the time of Incident receipt by the	Contractor Measured; Incident	All	Average Initial Response Time	See: Priority and	Electoral Event	Electoral Event

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
reports an Incident and the time that the Service Desk responds to that Incident	Contractor Service Desk to the time the Service Desk responds to the user (and logs) the first resolution activity] divided by [the number of incidents logged by the Contractor's Service Desk] = [Average Initial Response Time]	Management Tool			Response Levels	Monthly	Monthly
Average time for resolving an incident (grouped by category - See: Priority and Response Levels)	[The sum of the durations measured from the time of Incident receipt by the Contractor Service Desk to the time the Service Desk logs the final resolution activity] divided by [the number of incidents logged by the Contractor's Service Desk] = [Average Incident Resolution Time]	Contractor Measured; Incident Management Tool	All	Incident Resolution Time		Electoral Event	Electoral Event
Average time for resolving Problems	[The sum of the durations measured from the time of receipt of the first incident	Contractor Measured; Incident	All	Problem Resolution Time		Monthly	Monthly
						Electoral Event	Electoral Event

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
(grouped by category - See: Priority and Response Levels)	related to a problem by the Contractor Service Desk to the time the Service Desk logs the final resolution activity for an incident related to the problem] divided by [the number of problems logged by the Contractor's Service Desk] = [Average Problem Resolution Time]	Management Tool				Monthly	Monthly
<b>41.01.05 KPIs Service-level management</b>							
a. <b>SLAs: for 41.01.01 to 41.01.04 ensure that service delivery meets contracted targets</b>							
The percentage of SLAs met by the Contractor during the reporting period.	[Number of SLAs required to be met by the Contractor during the Measurement Interval and met throughout the Measurement Interval] divided by [Total of all SLAs required to be met by Contractor during the Measurement Interval] times 100 = [Percent (%) Attained]	Contractor Measured		SLA Compliance	95.00%	Monthly	Monthly
b. <b>Quality Management: for 41.01.01 to 41.01.04 manage the probability that service delivery meets contracted targets</b>							

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
Number of issues which are attributed to inadequate product or service quality	[Number of incidents of all types where the underlying problem was attributable to a quality management failure as identified through implementation of the Contractor's EC approved Quality Management Plan or the Operations Committee] = [Number of E-Poll Solution quality issues]	Contractor Measured	All	Number of E-Poll Solution Quality Issues	0	Monthly	Monthly
<b>41.02. Product Development Life-Cycle Performance Metrics</b>							
<b>41.02.01 KPIs Change management: Manage the process of identification and tracking of issues and resolutions</b>							
Number of RFCs assessed by the Operations Committee (grouped by E-Poll Solution component)	[Number of E-Poll Solution RFCs for each component] = [Number of Major Changes].	Contractor Measured; Change Management Tool	All	Number of Major Changes	0	Monthly	Monthly

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
Average time from registering a RFC with Change Management until a decision on the RFC is reached (i.e. approved or rejected)	[The sum of the durations measured from the time of RFC approval by the Operations Committee to the time the Operations Committee logs the RFC as closed] divided by [the number of RFCs approval by the Operations Committee] = [Average RFC Resolution Time]	Contractor Measured; Change Management Tool	All	Time for Change Approval/ Rejection	0	Monthly	Monthly
Number of Emergency Changes assessed by FREM during Electoral Events (grouped by E-Poll Solution component)	[Number of E-Poll Solution RFCs raised by FREM during an Electoral Event for each component] = [Number of Emergency Changes].	Contractor Measured; Change Management Tool	All	Number of Emergency Changes	0	Electoral Event	Electoral Event
RFCs are executed in line with EC approved schedule (grouped by E-Poll Solution component).	[Number of E-Poll Solution RFCs executed within the target time frame] divided by [Total number of all E-Poll Solution RFCs] multiplied by 100 = [percentage of all E-Poll Solution RFCs executed within the target time frame such month].	Contractor Measured; Change Management Tool	All	RFC Timeliness	100.00%	Monthly	Monthly
<b>41.02.02 KPIs Configuration management: Manage the interoperability of components</b>							



Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
Number of CM-related incidents (incidents arising from version incompatibility between E-Poll Solution components) causing service interruption or reduced availability	[Number of Service Desk incidents related to CM-related issues and logged during the Measurement Interval] = [Number CM-related Service Disruptions]	Contractor Measured; Incident Management Tool	CCS	Number of CM-related Service Disruptions on Polling Days	0	Daily	Daily
			CCS	Number of CM-related Service Disruptions between the issue of the writs and EC notification of event completion, excluding Polling Days	0	Electoral Event	Electoral Event
			CCS	Number of CM-related Service Disruptions outside Electoral Events Calendars	0	Monthly	Monthly
			E-Poll Device	Number of CM-related Service Disruptions on Polling Days	0	Electoral Event	Electoral Event

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
Average duration of CM-related (incidents arising from version incompatibility between E-Poll Solution components) service disruptions	[The sum of the duration of all CM-related service disruptions during the reporting period] divided by [The number of CM-related service disruptions during the reporting period] = [Duration of CM-related Service disruptions] Where [The duration of a service disruption] = [the length of time between the first moment when the conditions for a Severity Level 1 or Level 2 disruption are met and the last moment when the conditions for a Severity Level 1 or Level 2 disruption are met as a result of adequate resolution of the underlying problem].	Tool supplied by the Contractor; automatically records date and time stamps for each activity within a process, including uptime and downtime data.	CCS	Duration of CM-related Service disruptions	15 minutes	Electoral Event	Electoral Event
			CCS	Duration of CM-related Service disruptions	4 hours	Monthly	Monthly
<b>41.02.03 KPIs Release Management</b>							
a. <b>Verify product conformance to requirements</b>							
All application changes are	[Total number of E-Poll Solution components that are	Contractor Measured	CCS	Change Accuracy	100.00%	Monthly	Monthly

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
accurate compared to EC approved requirements	changed in accordance with EC specified requirements] divided by [Total number of E-Poll Solution component changes] multiplied by 100 = [percentage of E-Poll Solution Change Accuracy such month].		E-Poll	Change Accuracy	100.00%	Monthly	Monthly
Percentage of Releases which are proposed for implementation by the Contractor and Implemented by EC after Acceptance Testing (possibly with accepted known issues)	[Number of releases delivered which are subject to Acceptance testing, and which pass the EC Acceptance Test without being rejected] divided by [Number of releases which are subject to Acceptance testing] multiplied by 100 = [Successful Acceptance Tests].	EC measured	All	Successful Acceptance Tests	100.00%	Monthly	Monthly
Number of Release Acceptance Test Errors	[The number of identified errors during acceptance testing per release (grouped by Major Errors which result in a failed acceptance test, and Minor Errors which do not result in a failed acceptance test)] = [Number of identified Errors]	Contractor Measured	All	Number of identified Release Errors	0	Monthly	Monthly

Description	Formula	Measurement Method/ Source Data	Component	Key Performance Indicator (KPI)	SLR Target	Measurement Interval	Reporting Interval
Number of Incidents attributed to unintended consequences of new releases not accepted as a known issue.	[Number of incidents of all types where the underlying problem was attributable to an unintended consequence of functionality in a new release as identified through root cause analysis] = [Incidents caused by New Releases]	Contractor Measured	All	Incidents caused by New Releases	0	Monthly	Monthly
<b>b. Manage the implementation of changes to avoid affecting business</b>							
Number of releases which had to be reversed	[Number of releases which failed implementation or were successfully implemented, then reversed as the result of problem resolution] = [Number of Release Backouts].	EC measured	All	Number of Release Backouts	0	Monthly	Monthly

**42. EC BUSINESS VOLUME METRICS**

Where the performance of Contractor products or services is dependent on the volume of key EC business transactions or the quantity of EC business entities, the Contractor must use the following historical data for minimum volume metrics.

The metrics in this section are projected minimum values for the 43<sup>rd</sup> GE – the first GE in which the Contractor's E-Poll Solution will be deployed. The actual projected minimums for the 43<sup>rd</sup> GE and subsequent GEs may be revised. It is the Contractor's responsibility to request the latest projections for each Electoral Event for volume metrics on which the Contractor's E-Poll Solution performance is dependent, and to ensure that the Contractor's E-Poll Solution performance meets SLRs for ECs projected volumes for each Electoral Event.

**42.01. Projected Load on Contractor Central Server**

	<b>Advance Polling Days</b>	<b>Election Day</b>
Potential peak of concurrently connected Polling Places	100%	100%
Expected average number of concurrently connected Polling Places	60%	60%
National number of Electors	28,000,000	28,000,000
National number of Elector Strikes per day	2,000,000	20,000,000
National number of Elector at-poll list corrections per day	75,000	300,000
National number of Elector at-poll registrations per day	175,000	700,000

**42.02. Projected numbers for Polling Place E-Poll Devices**

	Advance Polling Days	Election Day
Potential number of Electors per ED <i>Represents data population for local Polling Place databases</i>	150,000	150,000
Number of Polling Places	3,500	20,000
Number of Service Points per Polling Place <i>(Upper value represents the potential number of <u>concurrently connected and active</u> Service Points per Poling Place)</i>	1 to 20	1 to 30
Potential national number of Service Points	6,000	60,000

**42.03. Projected distribution of polling activities for Polling Places and Service Desks**

*Note that the following is based on historic data from the 42<sup>nd</sup> GE. For the 42<sup>nd</sup> GE there was typically one Service Point per PD, however, in Electoral Events where the E-Poll Solution is deployed, the planned ratio of E-Poll Devices to PDs will vary between 1:2 and 1:1.*

Service Desks	Polling Places		Votes Cast by Polling Place (Strike)				Elector List Transactions by Polling Place (Add, Update)			
	Count	%	Min	Max	Median	Average	Min	Max	Median	Average
<b>1</b>	4,034	<b>25.91</b>	2	715	168	<b>173</b>	0	510	11	<b>19</b>
<b>2</b>	1,900	<b>12.20</b>	89	1,167	377	<b>384</b>	0	755	22	<b>30</b>
<b>3</b>	1,622	<b>10.42</b>	192	1,061	585	<b>589</b>	0	818	35	<b>43</b>
<b>4</b>	1,825	<b>11.72</b>	230	1,355	814	<b>811</b>	0	721	47	<b>54</b>

Service Desks	Polling Places		Votes Cast by Polling Place (Strike)				Elector List Transactions by Polling Place (Add, Update)			
	Count	%	Min	Max	Median	Average	Min	Max	Median	Average
5	1,616	10.38	477	1,870	1,024	1,025	0	574	60	67
6	1,291	8.29	505	1,983	1,240	1,233	2	416	72	78
7	952	6.11	776	2,036	1,439	1,434	1	828	82	92
8	701	4.50	875	2,340	1,651	1,637	0	370	91	96
9	501	3.22	902	2,646	1,835	1,826	13	491	107	116
10	528	3.39	1,141	2,860	2,054	2,043	2	422	107	119
11	189	1.21	1,138	3,423	2,202	2,210	4	493	111	127
12	125	0.80	1,543	3,274	2,364	2,359	19	400	64	108
13	76	0.49	1,331	3,415	2,618	2,589	15	374	75	115
14	65	0.42	1,870	3,580	2,845	2,806	12	526	83	144
15	40	0.26	1,797	4,112	3,164	3,116	11	392	66	129
16	26	0.17	2,662	4,497	3,247	3,327	20	581	72	109
17	21	0.13	2,570	4,384	3,230	3,306	24	470	158	177
18	9	0.06	2,633	4,746	3,809	3,653	43	546	70	126
19	5	0.03	3,469	4,123	3,520	3,638	56	158	86	96
20	9	0.06	3,532	5,043	4,320	4,316	55	678	179	252
21	11	0.07	3,261	5,118	4,275	4,272	63	737	285	293

Service Desks	Polling Places		Votes Cast by Polling Place (Strike)				Elector List Transactions by Polling Place (Add, Update)			
	Count	%	Min	Max	Median	Average	Min	Max	Median	Average
<b>22</b>	8	<b>0.05</b>	3,502	5,377	3,790	<b>4,005</b>	36	455	240	<b>220</b>
<b>23</b>	6	<b>0.04</b>	3,963	4,997	4,187	<b>4,296</b>	81	720	287	<b>340</b>
<b>24</b>	2	<b>0.01</b>	4,718	5,232	4,975	<b>4,975</b>	107	246	177	<b>177</b>
<b>25</b>	2	<b>0.01</b>	4,722	5,834	5,278	<b>5,278</b>	70	473	272	<b>272</b>
<b>26</b>	3	<b>0.02</b>	4,931	5,840	4,997	<b>5,256</b>	100	491	107	<b>233</b>
<b>27</b>	0	<b>0</b>	-	-	-	-	-	-	-	-
<b>28</b>	0	<b>0</b>	-	-	-	-	-	-	-	-
<b>29</b>	1	<b>0.01</b>	7,271	7,271	7,271	<b>7,271</b>	610	610	610	<b>610</b>
<b>30</b>	0	<b>0</b>	-	-	-	-	-	-	-	-
<b>31</b>	1	<b>0.01</b>	5,386	5,386	5,386	<b>5,386</b>	564	564	564	<b>564</b>
<b>32</b>	0	<b>0</b>	-	-	-	-	-	-	-	-
<b>33</b>	0	<b>0</b>	-	-	-	-	-	-	-	-
<b>34</b>	0	<b>0</b>	-	-	-	-	-	-	-	-
<b>35</b>	0	<b>0</b>	-	-	-	-	-	-	-	-
<b>36</b>	1	<b>0.01</b>	6,662	6,662	6,662	<b>6,662</b>	141	141	141	<b>141</b>
<b>37</b>	0	<b>0</b>	-	-	-	-	-	-	-	-
<b>38</b>	0	<b>0</b>	-	-	-	-	-	-	-	-



Service Desks	Polling Places		Votes Cast by Polling Place (Strike)				Elector List Transactions by Polling Place (Add, Update)			
	Count	%	Min	Max	Median	Average	Min	Max	Median	Average
39	0	0	-	-	-	-	-	-	-	-
40	0	0	-	-	-	-	-	-	-	-

**42.04. Projected number of RO and AARO Offices**

	Advance Polling Days	Election Day
National number of RO Offices	338	338
National number of AARO Offices	150	150

**42.05. Projected Elector Record volumes for the Contractor Central Server**

	Required Capacity
Transfer to EC	20 million records / 24 hours
Receive from EC	30 million records / 24 hours

## **Voting Services Modernization/Polling Place Process Enhancement**

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### **PART 9**

### **Certificates**

## Certificates

### 1. Independent Proposal

1.1. I, the undersigned, on behalf of \_\_\_\_\_ [insert name of Bidder] (the “Bidder”) in submitting the accompanying proposal (the “proposal”) to Elections Canada for the Polling Place Process Enhancement (PPPE) services hereby make the following statements, that I certify to be true and complete in every respect:

- (a) I have read and I understand the contents of this Certificate;
- (b) I understand that the proposal will be disqualified if this Certificate is found not to be true and complete in every respect;
- (c) I am authorized by the Bidder to sign this Certificate, and to submit the proposal, on behalf of the Bidder;
- (d) each person whose signature appears on the proposal has been authorized by the Bidder to determine the terms of, and to sign, the proposal, on behalf of the Bidder;
- (e) for the purpose of this Certificate and the proposal. I understand that the word “competitor” shall include any individual or organization, other than the Bidder, whether or not an Affiliate of the Bidder, who:
  - i. has been requested to submit a proposal in response to the request for proposal;
  - ii. could potentially submit a proposal in response to the request for proposal, based on their qualification, abilities or experience;
- (f) the Bidder disclosed that (check one of the following, as applicable):

- i.  the Bidder has arrived at the proposal independently from, and without consultation, communication, agreement or arrangement with, any competitor;

**OR**

- ii.  the Bidder has entered into consultations, communications, agreements or arrangements with one or more competitors regarding this call for proposals, and the Bidder disclosed, in the attached documents (s) complete details thereof, including the names of the competitors and the nature of, and reasons for, such consultation, communications, agreements or arrangements.

- (g) in particular, without limiting the generality of subparagraphs (f)i. or (f)ii. above, there has been no consultation, communications, agreement or arrangement with any competitor regarding:
- i. prices
  - ii. methods, factors or formulas used to calculate prices;
  - iii. the intention or decisions to submit, or not to submit, a proposal; or
  - iv. the submission of a proposal which does not meet the specifications of the call for proposals;
- except as specifically disclosed pursuant to subparagraph (f)ii. above:
- (h) in addition, there has been no consultation, communications, agreement or arrangement with any competitor regarding the quality, quantity, specifications or delivery particulars of the products or services to which this call for proposals relates, except as specially authorized by the Contracting Authority or as specifically disclosed pursuant to subparagraph (f)ii. above;
- (i) the terms of the proposal have not been, and will not be, knowingly disclosed by the Bidder, directly or indirectly, to any competitor, prior to the date and time of the official proposal opening, or of the awarding of the contract, whichever comes first, unless otherwise required by law or as specially disclosed pursuant to subparagraph (f)ii. above.

## 2. Federal Contractors Program

- 2.1. The Federal Contractors Program for employment equity is intended to address employment disadvantage for the four designated groups: women, Aboriginal peoples, persons with disabilities and members of visible minorities. Further information is available on the Human Resources and Skills Development Canada (HRSDC) Website.
- 2.2. The Bidder certifies as follows (check only one of the following):
- (a)  it does not have a work force in Canada;
  - (b)  it is a public sector employer;
  - (c)  it is a [federally regulated employer](#) being subject to the *Employment Equity Act*;
  - (d)  it has a combined work force in Canada of less than 100 employees. A combined work force includes: permanent full-time, permanent part-time and temporary employees. Temporary employees only includes those who have worked 12 weeks or more during a calendar year and who are not full-time students;
  - (e)  it has a combined workforce in Canada of 100 or more employees; and

- i.  it already has a valid and current [Agreement to Implement Employment Equity](#) (AIEE) in place with HRSDC-Labour.

**OR**

- ii.  it has submitted the [Agreement to Implement Employment Equity \(LAB1168\)](#) to HRSDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to HRSDC-Labour.

2.3. The Bidder further certifies as follows (check only one of the following):

- (a)  it is not a joint venture;

**OR**

- (b)  it is a joint venture. In the event that the Bidder is a joint venture, each member of the joint venture must provide the Contracting Authority with a certificate containing the certification set-out in Section 2.2 of this Certificate.

### 3. Former Public Servant

3.1. Contracts with former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts with FPS, bidders must provide the information required below.

3.2. For the purposes of this clause,

“former public servant” is any former member of a department as defined in the *Financial Administration Act*, R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- (a) an individual;
- (b) an individual who has incorporated;
- (c) a partnership made of former public servants; or
- (d) a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

“lump sum payment period” means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

“pension” means, in the context of the fee abatement formula, a pension or annual allowance paid under the *Public Service Superannuation Act (PSSA)*, R.S., 1985, c. P-36, and any increases paid pursuant to the *Supplementary Retirement Benefits Act*, R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the *Canadian Forces Superannuation Act*, R.S., 1985, c. C-17, the *Defence Services Pension Continuation Act*, 1970, c. D-3, the *Royal Canadian Mounted Police Pension Continuation Act*, 1970, c. R-10, and the *Royal Canadian Mounted Police Superannuation Act*, R.S., 1985, c. R-11, the *Members of Parliament Retiring Allowances Act*, R.S., 1985, c. M-5, and that portion of pension payable to the *Canada Pension Plan Act*, R.S., 1985, c. C-8.

3.3. Is the Bidder a FPS in receipt of a pension as defined above? **YES**  **NO**

If yes, the Bidder must provide the following information:

- (a) name of former public servant;
- (b) date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder’s status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with *Contracting Policy Notice: 2012-2* and the *Guidelines on the Proactive Disclosure of Contracts*.

3.4. Is the Bidder a FPS who received a lump sum payment pursuant to the terms of a work force reduction program? **YES**  **NO**

If yes, the Bidder must provide the following information:

- (a) name of former public servant;
- (b) conditions of the lump sum payment incentive;
- (c) date of termination of employment;
- (d) amount of lump sum payment;
- (e) rate of pay on which lump sum payment is based;

- (f) period of lump sum payment including start date, end date and number of weeks;
- (g) number and amount (professional fees) of other contracts subject to the restrictions of a work force reduction program.

3.5. For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including the Goods and Services Tax or Harmonized Sales Tax.

3.6. By submitting a proposal, the Bidder certifies that the information submitted by the Bidder in response to the above requirements is accurate and complete.

#### **4. Status and Availability of Resources**

4.1. The Bidder certifies that, should it be awarded a contract as a result of the RFP, every resource proposed in its proposal will be available to perform the Work as required by Elections Canada and at the time specified in the RFP or agreed to with Elections Canada. If for reasons beyond its control, the Bidder is unable to provide the services of its proposed resources, the Bidder acknowledges that Elections Canada may:

- (a) at its sole discretion, either before or after obtaining the name of a replacement in accordance with Section 3.03 of the General Conditions, terminate the Contract for default, pursuant to Article 20 of the General Conditions; or
- (b) request that the Bidder propose, in accordance with Section 3.03 of the General Conditions, a replacement with similar qualifications and experience. In response to such request, the Bidder must advise the Contracting Authority of the reason for the substitution.

4.2. If the Bidder has proposed any resource who is not an employee of the Bidder, the Bidder certifies that it has the permission from that resource to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Elections Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the resource, of the permission given to the Bidder and of his/her availability.

#### **5. Annual Revenues**

5.1. The Bidder certifies that in its three most recent fiscal years it had annual gross revenues in excess of \$50 million.

#### **6. Privacy Act and Personal Information Protection and Electronic Documents Act**

6.1. The Bidder hereby certifies that it has reviewed the requirements of this RFP, the resulting contract clauses and, in particular, the requirements concerning the protection of personal information. The Bidder also certifies that it will comply with those terms and ensure that personal information that is managed, accessed, collected, used, disclosed, retained, received, created, or disposed of in order to fulfil the requirements of the Contract shall be treated in accordance with the *Privacy Act*, R.S. 1985, c. P-21, the *Personal Information Protection and Electronic Documents Act*, 2000, c. 5, and Treasury Board privacy policies.

**7. General**

- 7.1. This certification shall be true and correct throughout the term of the Contract with the same force and effect as if continuously made throughout the term of the Contract.
- 7.2. Furthermore, the Bidder acknowledges that Elections Canada shall rely on this certification to award the Contract. Should the Bidder fail to comply with this certification or in the event that verification or inspection by Elections Canada discloses a misrepresentation on the part of the Bidder, Elections Canada shall have the right to treat any contract resulting from this proposal as being in default and to terminate it pursuant to the default provisions of the Contract.

\_\_\_\_\_  
Signature of the Authorized Representative of Bidder

\_\_\_\_\_  
Date

Print Name of Authorized Representative of Bidder:

Print Title of Authorized Representative of Bidder:

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