



TENDER

PROVISION OF ELECTRONIC VOTING SYSTEM

Title:	Electronic voting System
Tender No	IEK/CE/01/2026
Type of Contract	Service
Language of Notice	English
Deadline	24 th February 2026

Table of Contents

1.0 INTRODUCTION	3
2.0 OBJECTIVES	3
3.0 SCOPE OF THE ASSIGNMENT	3
4.0 DELIVERABLES	5
5.0 PROJECT IMPLEMENTATION SCHEDULE	8
6.0 REPORTING REQUIREMENTS	8
7.0 EXPERTISE REQUIRED	8
8.0 MANDATORY REQUIREMENTS	9
9.0 TECHNICAL EVALUATION CRITERIA	10
10.0 FINANCIAL EVALUATION	11
11.0 PAYMENT TERMS.	12
12.0 SUBMISSION DETAILS	12

INSTITUTION OF ENGINEERS OF KENYA (IEK)
TERMS OF REFERENCE (TOR)
ELECTRONIC VOTING SYSTEM

1.0 INTRODUCTION

The Institution of Engineers of Kenya (IEK) is the learned society of the engineering profession and co-operates with national and other international institutions in developing and applying engineering to the benefit of humanity.

IEK members are drawn from practicing engineers working in various government institutions (both national and county), private sector, consultancies, contractors, educators, designers, manufacturers and other persons interested in engineering. IEK provides services to members through seminars, lectures, publications and training, to enable them to keep up to date with technical and industrial developments, management aspects of engineering, changes in technology and relevant developments in Kenya and elsewhere.

The Institution holds its election after every two years to elect their Council members. The Council members consist of 5 Executive Members, (President, 1st Vice President, 2nd Vice President, Honorary Secretary, Honorary Treasurer) 6 Ordinary Council members, 8 Branch Chairpersons, 2 Nominated Members and the Immediate Past President.

As per the elections calendar, the national elections date is on 23rd March 2026 from 6:00AM to 6:00PM.

2.0 OBJECTIVES

The objective of the Electronic Voting System is to ensure a secure, transparent, efficient, and credible election process for the Institution of Engineers of Kenya (IEK) by leveraging modern digital technology while upholding election integrity and member confidence.

3.0 SCOPE OF THE ASSIGNMENT

The vendor must demonstrate capacity to handle:

3.1 Parameters Details

- Total Voter Roll- Approximately 5,000 – 7,000 Registered Engineers
- National Positions- 5 Distinct Offices (President, 1st VP, 2nd VP, Hon. Treasurer, Hon. Secretary and 6 Ordinary Members)
- Elections- National election will be done on 23rd March 2026
- Voter Restriction- Strict Geo-location is not required; Good Standing membership status is required.
- Provide full time support before, during and after the voting/ election's day.
- Provide real time results to every voter immediately after closure of voting.

NB: Critical Requirement: A member belongs to one branch only

3.2 Voter Management & Authentication Matrix

- Integration with existing IEK database (MS MSOL/Excel extract) Mandatory
- Bulk upload of voters with unique Membership Mandatory
- System-generated unique Voter ID & Password Mandatory
- MFA via SMS OTP and Email OTP (User selects method) Mandatory
- Biometric verification (optional, if vendor proposes) Desirable
- Real-time eligibility validation (Active vs Suspended members) Mandatory
- Prevention of duplicate voting (Immutable flag on voter ID) Mandatory
- Rate limiting & brute force protection (max 5M attempts) Mandatory

3.3 Ballot Configuration & Presentation

- Single-Choice Vote President, 1st & 2nd Vice Presidents, Treasurer, Secretary
- Multi-Choice Vote (Limited) Ordinary Members- Select Maximum 6 candidates
- Randomized Candidate Order Prevents position bias. Order randomized per voter session
- None of the Above" (NOTA) Option- Optional per position
- Review Screen- Voter must confirm selection before final cast.
- Cast Confirmation- Unique receipt ID issued to voter upon successful cast

3.4 Security & Infrastructure Architecture (Critical)

Vendor must provide a Security Architecture Document detailing:

- Data at Rest- AES-256 encryption
- Data in Transit- TLS 1.3 minimum
- Audit Log- Immutable, append-only log. Timestamped (NTP synchronized)
- Hosting- ISO 27001 certified data center. Location must be disclosed loud (AWS/Azure/GCP) allowed if GovCloud/High Compliance region used.
- Penetration Testing- Vendor to provide recent (<12 months) third-party pen test report. IEK reserves right to conduct independent test pre-deployment.
- DDoS Protection- WAF + CDN + Rate Limiting. Mitigation response time <10 minutes
- Backup- Real-time replication + Daily snapshots. Geo-redundant. Retention: 30 days
- Disaster Recovery- RTO: 1 hour. RPO: 5 minutes
- Bot Protection- CAPTCHA or equivalent challenge for vote casting; bot detection/fingerprinting; automated traffic filtering.

3.5 Bot & Automated Attack Mitigation

The system must actively detect and mitigate automated (bot) activities. At

a minimum, the Vendor shall implement:

- CAPTCHA or equivalent challenge on the vote casting screen to prevent automated ballot submission.
- Rate limiting per IP and per voter session (already required in VM-08).
- Bot fingerprinting (e.g. analysis of headers, behavior, JavaScript challenges).
- Automated blocking of traffic patterns consistent with botnets or scripted attacks.
- Reporting dashboard for bot activity during the election period.

This requirement is in addition to the DDoS protection measures specified above.

4.0 DELIVERABLES

Deliverables for the Electronic Voting System include:

i. Requirements & Planning Deliverables

System Requirements Specification (SRS)

- Functional requirements (voter registration, authentication, vote casting, tallying, audit logs, etc.)
- Non-functional requirements (security, performance, usability, regulatory compliance)

ii. System Design Deliverables

System Architecture Document

- System components, data flow, integration points
- Network architecture (local, cloud, hybrid setup)

UI/UX Design Prototypes

- Interfaces for voters, administrators, observers

Security Design Document

- Encryption methods
- Authentication protocols
- Access control structure
- Fraud detection strategies

iii. Development Deliverables

Test Data & Sample Inputs

- Dummy voters
- Sample ballots

iv. Testing Deliverables

Test Plan

- Testing strategies (unit, integration, penetration testing)

Test Cases & Test Scripts

Test Reports

- Results from functional testing
- Security and penetration testing results
- Performance testing metrics

Security Audit Report

- Vulnerability assessment
- Risk score and mitigation actions

User Manuals

- Voter user guide
- Admin/official's guide
- Troubleshooting guide

Training Materials

- Slides, videos, walkthroughs
- Training logs for staff

Operational Procedures

- Poll opening/closing procedures
- Vote tallying procedure
- Backup & recovery procedure

v. Data & Reporting Deliverables

Voter Registration Database Ballot Definition Files

- Candidate lists
- Positions
- Referenda questions

Audit Logs

- System events
- Access logs
- Transaction logs

Final Election Reports

- Voting statistics
- Tally results
- System performance report

Post-Election & Maintenance Deliverables Post-Election Audit Report

- Audit trails
- Verification results
- Discrepancy analysis

Maintenance Plan

- System updates
- Patch schedules
- Security monitoring plan

vi. Training and Capacity Building

- The Vendor must conduct comprehensive training for the following cohorts:
 - ✓ System Administrators consisting of IEK Secretariat i.e. ICT Officers
 - ✓ Scrutineers- they will be responsible for handling the elections.
- Voters and scrutineer's sensitization before mock elections.

5.0 PROJECT IMPLEMENTATION SCHEDULE (To be filled by the vendor)

S/No	Activity	Duration (Days)	Start Date (IEK Election calendar)	End Date
1.	Project Kick-off & requirement validation			
2.	System Configuration & Integration			
3.	Scrutineer's sensitization/training	1 Day	5 th March 2026	5 th March 2026
4.	Voters Sensitization	1 Day	09 th March 2026	09 th March 2026
5.	Mock Elections 1 (National)	1 Day	12 th March 2026	12 th March 2026
6.	User Acceptance Testing with IEK Secretariat and Scrutineer's	1 Day	16 th March 2026	16 th March 2026
7.	Mock Elections 2 (National)	1 Day	18 th March 2026	18 th March 2026
8.	Security Audit & Penetration Testing	Daily	Daily	Daily
9.	Final Deployment & Go-Live (Elections Date)	1 Day	23 rd March 2026	23 rd March 2026
10.	Results Declaration & Archiving		23 rd March 2026	

6.0 REPORTING REQUIREMENTS

The Supplier shall be required to submit the works as per our agreement of engagement. The supplier is expected to deliver the following reports

- a) Inception report
- b) Periodic progress updates
- c) Testing and certification
- d) Final implementation and handover report

7.0 EXPERTISE REQUIRED

The service provider shall have key staff to undertake this task. The qualifications and skills required include but are not limited to:

- a) Lead member must be an experienced professional with over 8 years' work experience.

- b) Support team members must be an experienced professional with over 4 years' work experience.
- c) The Lead member must have demonstrable experience in leading and implementing similar works for at least three renowned clients. The service provider should demonstrate a similar experience i.e. (Evidence of previous work undertaken or testimonials is required)
- d) The Service Provider must have enough well-trained staff to carry out the assignment.
- e) The service provider must have sufficient knowledge about electioneering system and have experience with using them.

8.0 MANDATORY REQUIREMENTS

1. MANDATORY CRITERIA			
Bidders should submit copies of the following documents as indicated below.			
S/No.	REQUIRMENTS	YES	NO
1.	Proof of legal existence (Certificate of registration/ incorporation)		
2.	Valid relevant Business permit		
3.	Valid Tax compliance certificate from KRA (i.e., not more than 12 months with effect from date of submission of quote)		

4.	Submit a CR12 form stating the directors and % ownership of the companies		
5.	A detailed Company Profile with physical location address		
6.	Proof of previous work done of similar magnitude. Kindly attach LSO/ links and any other evidence and completion certificate.		
8.	Deadline for submission of the quotation is 24 th February 2026 before COB.		

Note: Noncompliance with any MANDATORY requirement will automatically result in disqualification

9.0 TECHNICAL EVALUATION CRITERIA

(Minimum Technical Score to Qualify for Financial Evaluation: 70%)

Technical Evaluation			
2.	GENERAL REQUIREMENTS		
1.	System security & Integrity Data encryption, authentication, audit trail, hosting compliance, pen test, security architecture document and certification.		30

2.	Functionality & User Experience Ballot configuration, multi-branch isolation, mobile responsiveness, demonstration, UI/UX mock- ups	15
3.	Vendor Experience -Similar size elections, references, LPOs, completion certificates	20
4.	Detailed work plan showing Implementation & Support, Project plan, SLA definition, on-day support, redundancy plan.	20
5.	Lead person- Bachelor's degree in either of Computer science, IT, Software Engineering, Information system and cyber security. 8 Years of experience in handling voters' electronic system (Attach certificates and CV Support Staff degree in any relatable course and 4 years of experience.	15
Total		100

10.0 FINANCIAL EVALUATION.

Comparison of Total cost of ownership (Set up, Licensing, Hosting, Support, SMS)

Award: Highest combined score (Technical + Financial). Vendors are required to submit their financial form.

Provision of Electronic Voting System (Prices should be Inclusive of all deliverables, Scope of Work and Term of Reference attached) Financial proposal SHOULD be broken-down. The final price should be inclusive of Vat.

Item No	Item Description	Qty	Unit Rate	Total Inc Vat
1.	Provision of IEK Electronic Voting System	1		
ADD VAT				
TOTAL				
TOTAL IN WORDS				

11.0 PAYMENT TERMS.

The Institution operates on a 30day credit payment term counted from the date of receipt of invoice and confirmation of satisfactory delivery of service or goods. No advance payment shall be made unless expressly agreed in writing and a payment guarantee is made by the supplier. The vendor should state their payment terms.

12.0 SUBMISSION DETAILS

Any request for clarification must be sent in writing, or by standard electronic communication to the address or e-mail indicated below. IEK will respond in writing or by standard electronic mail and will send written copies of the response, including an explanation of the query without identifying the source of inquiry, to all consultants/service company/vendors.

Contact Information/Submission address:

Chief Executive Officer

ceo@iekenya.org

and cc procurement@iekenya.org

Hard copy should be sent to

Chief Executive Officer

The Institution of Engineers of Kenya

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