

REQUEST FOR QUOTATION NO. RfQ24/ 02892

Load and stress testing of the SAISE E-Day Application and CEC official website for the 2024 Presidential Elections and Referendum

SECTION 1: REQUEST FOR QUOTATION (RFQ)

UNDP through the **Enhancing democracy in Moldova through inclusive and transparent elections (phase II) Project**, kindly requests your quotation for the **Request for Quotation no. RfQ24/02892: Load and stress testing of the SAISE E-Day Application and CEC official website for the 2024 Presidential Elections and Referendum** as detailed in line items section of this RFQ.

This Request for Quotation comprises the following documents:

Section 1: This RFQ document generated by the online system

Section 2: RFQ Instructions and Data

Annex 1: Schedule of Requirements

Annex 2: Quotation Submission Form

Annex 3: Technical and Financial Offer

When preparing your quotation, please be guided by the RFQ Instructions and Data. Please note that quotations must be submitted directly in the system responding to the questions and uploading required documents by the date and time indicated in the online portal. It is your responsibility to ensure that your quotation is submitted before the deadline. Quotations received after the submission deadline outside the online portal, for whatever reason, will not be considered for evaluation.

Quotations must be submitted directly in Quantum NextGenERP supplier portal following the link: <http://supplier.quantum.partneragencies.org> using the profile you may have in the portal (please log in using your username and password).

Follow the instructions in the user guide to search for the tender using search filters, namely **Negotiation ID: UNDP-MDA-00514** and subscribe to the tender in order to get notifications in case of amendments of the tender document and requirements.

In case you have never registered before, follow this link to register a profile: <https://estm.fa.em2.oraclecloud.com/fscmUI/faces/PrcPosRegisterSupplier?prcBuld=300000127714247>

Please note that the access link to the Supplier registered profile is sent from Oracle within up to 3 days. In case you have not received the access link after 3 days since registration, you should address for support to UNDP at the email address: sc.md@undp.org. In case you encounter errors with registration (e.g. system states Supplier already is registered), you should address for support to UNDP at the email address: sc.md@undp.org.

Computer firewall could block *oracle* or *undp.org* extension and Suppliers might not receive the Oracle notifications. Please turn down any firewalls on your computers to ensure receipt of email notification.

Do not create a new profile if you already have one. Use the forgotten password feature in case you do not remember the password or the username from previous registration.

Should you require further clarifications on the application through the Quantum online portal, kindly contact the Procurement Unit at sc.md@undp.org. Please pay attention that the bid shall be submitted online through the Quantum system and any bid sent to the above email shall be disqualified.

Should you require further clarifications on the Request for Quotation, Terms of Reference or other requirements, kindly communicate using the messaging functionality in the portal.

Deadline for Submission of Offers (Date and Time), which is visible in the online procurement system will be final. System will not accept submission of any bid after that date and time. It is the responsibility of the bidder to make sure that the bid is submitted prior to this deadline for submission.

Bidders are advised to upload bid documents and to submit their offer a day prior or well before the date and time indicated under the deadline for submission of Offers. Do not wait until last minute. If Bidder faces any issue during submitting offers at the last minutes prior to the deadline for submission, UNDP may not be able to assist on such a short notice and will not be held liable in such instance. UNDP will not accept any offer that is not submitted directly through the System.

Thank you and we look forward to receiving your quotation.

UNDP Moldova

SECTION 2: GENERAL INSTRUCTIONS

Introduction	<p>Bidders shall adhere to all the requirements of this RFQ, including any amendments made in writing by UNDP. This RFQ is conducted in accordance with the UNDP Programme and Operations Policies and Procedures (POPP) on Contracts and Procurement</p> <p>Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of the Bid by UNDP. UNDP is under no obligation to award a contract to any Bidder as a result of this RFQ.</p> <p>UNDP reserves the right to cancel the procurement process at any stage without any liability of any kind for UNDP, upon notice to the bidders or cancellation of the tender in the online portal.</p>
Deadline for the Submission of Quotation	<p>Deadline is indicated in the online portal.</p> <p>If any doubt exists as to the time zone in which the quotation should be submitted, refer to http://www.timeanddate.com/worldclock/.</p>
Method of Submission	<p>Quotations must be submitted as follows:</p> <p>NextGenERP supplier portal following this link: http://supplier.nextgenerp.partneragencies.org/ using the profile you may have in the portal.</p> <p>Follow the instructions in the user guide to search for the tender using Negotiation ID. In case you have never registered before, follow this link to register a profile:</p> <p>https://estm.fa.em2.oraclecloud.com/fscmUI/faces/PrcPosRegisterSupplier?prcBuld=300000127715297&_af.adf.ctrl-state=8godmwdd9_239&_afLoop=7321111756612874&_afWindowMode=0&_afWindowId=null&_afrFS=16&_afrMT=screen&_afrMFW=1920&_afrMFH=880&_afrMFDW=1920&_afrMFDH=1080&_afrMFC=8&_afrMFCI=0&_afrMFM=0&_afrMFR=96&_afrMFG=0&_afrMFS=0&_afrMFO=0</p> <p>Do not create a new profile if you already have one. Use the forgotten password feature in case you do not remember the password or the username from previous registration.</p> <ul style="list-style-type: none"> ▪ File Format: All attachments must be in PDF format unless otherwise instructed by UNDP. ▪ File names must be in Latin alphabet/keyboard and clearly indicate the content of the document to facilitate review. ▪ All files must be free of viruses and not corrupted.
Cost of preparation of quotation	<p>UNDP shall not be responsible for any costs associated with a Supplier's preparation and submission of a quotation, regardless of the outcome or the manner of conducting the selection process.</p>
Supplier Code of Conduct, Fraud, Corruption,	<p>All prospective suppliers must read the United Nations Supplier Code of Conduct and acknowledge that it provides the minimum standards expected of suppliers to the UN. The Code of Conduct, which includes principles on labour, human rights, environment and ethical conduct may be found at: https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct</p> <p>Moreover, UNDP strictly enforces a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical or unprofessional practices, and obstruction of UNDP vendors and requires all bidders/vendors to observe the highest standard of ethics during the procurement process and contract implementation. UNDP's Anti-Fraud Policy can be found at http://www.undp.org/content/undp/en/home/operations/accountability/audit/office_of_audit_and_investigation.html#anti</p>

Gifts and Hospitality	Bidders/vendors shall not offer gifts or hospitality of any kind to UNDP staff members including recreational trips to sporting or cultural events, theme parks or offers of holidays, transportation, or invitations to extravagant lunches, dinners or similar. In pursuance of this policy, UNDP: (a) Shall reject a bid if it determines that the selected bidder has engaged in any corrupt or fraudulent practices in competing for the contract in question; (b) Shall declare a vendor ineligible, either indefinitely or for a stated period, to be awarded a contract if at any time it determines that the vendor has engaged in any corrupt or fraudulent practices in competing for, or in executing a UNDP contract.
Conflict of Interest	<p>UNDP requires every prospective Supplier to avoid and prevent conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, specifications, cost estimates, and other information used in this RFQ. Bidders shall strictly avoid conflicts with other assignments or their own interests, and act without consideration for future work. Bidders found to have a conflict of interest shall be disqualified.</p> <p>Bidders must disclose in their Bid their knowledge of the following: a) If the owners, part-owners, officers, directors, controlling shareholders, of the bidding entity or key personnel who are family members of UNDP staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving goods and/or services under this RFQ.</p> <p>The eligibility of Bidders that are wholly or partly owned by the Government shall be subject to UNDP's further evaluation and review of various factors such as being registered, operated and managed as an independent business entity, the extent of Government ownership/share, receipt of subsidies, mandate and access to information in relation to this RFQ, among others. Conditions that may lead to undue advantage against other Bidders may result in the eventual rejection of the Bid.</p>
Currency of Quotation	Quotations shall be quoted in the currency indicated in the portal.
Joint Venture, Consortium or Association	If the Bidder is a group of legal entities that will form or have formed a Joint Venture (JV), Consortium or Association for the Bid, they shall confirm in their Bid that : (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the JV, Consortium or Association jointly and severally, which shall be evidenced by a duly notarized Agreement among the legal entities, and submitted with the Bid; and (ii) if they are awarded the contract, the contract shall be entered into, by and between UNDP and the designated lead entity, who shall be acting for and on behalf of all the member entities comprising the joint venture, Consortium or Association. Refer to Clauses 19 – 24 under Solicitation policy for details on the applicable provisions on Joint Ventures, Consortium or Association.
Only one Bid	<p>The Bidder (including the Lead Entity on behalf of the individual members of any Joint Venture, Consortium or Association) shall submit only one Bid, either in its own name or, if a joint venture, Consortium or Association, as the lead entity of such Joint Venture, Consortium or Association.</p> <p>Bids submitted by two (2) or more Bidders shall all be rejected if they are found to have any of the following:</p> <ul style="list-style-type: none"> a) they have at least one controlling partner, director or shareholder in common; or b) any one of them receive or have received any direct or indirect subsidy from the other/s; or b) they have the same legal representative for purposes of this RFQ; or c) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about, or influence on the Bid of, another Bidder regarding this RFQ process; d) they are subcontractors to each other's Bid, or a subcontractor to one Bid also submits another Bid under its name as lead Bidder; or e) some key personnel proposed to be in the team of one Bidder participates in more than one Bid received for this RFQ process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Bid.
Price variation	No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted at any time during the validity of the quotation after the quotation has been received.

Alternative Quotes	If alternative quote is permitted, it may be submitted only if a conforming quote to the RFQ requirements is submitted. Where the conditions for its acceptance are met, or justifications are clearly established, UNDP reserves the right to award a contract based on an alternative quote. If multiple/alternative quotes are being submitted, they must be clearly marked as “Main Quote” and “Alternative Quote” directly in the portal and in any supporting document as relevant.
Contact Person for correspondence, notifications and clarifications	Must be submitted directly in the portal using the messaging functionality. Any delay in UNDP’s response shall be not used as a reason for extending the deadline for submission, unless UNDP determines that such an extension is necessary and communicates a new deadline to the Proposers.
Right not to accept any quotation	UNDP is not bound to accept any quotation, nor award a contract or Purchase Order
Right to vary requirement at time of award	At the time of award of Contract or Purchase Order, UNDP reserves the right to vary (increase or decrease) the quantity of services and/or goods, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.
Publication of Contract Award	UNDP will publish the contract awards on the websites of the CO and the corporate UNDP Web site.
Policies and procedures	This RFQ is conducted in accordance with UNDP Programme and Operations Policies and Procedures
UNGM registration	Any Contract resulting from this RFQ exercise will be subject to the supplier being registered at the appropriate level on the United Nations Global Marketplace (UNGM) website at www.ungm.org . The Bidder may still submit a quotation even if not registered with the UNGM, however, if the Bidder is selected for Contract award, the Bidder must register on the UNGM prior to contract signature.

SECTION 2: SPECIAL INSTRUCTIONS

General Conditions of Contract	Any Purchase Order or contract that will be issued as a result of this RFQ shall be subject to one of the General Conditions of Contract below as applicable in each case specified in the Requirements section Applicable GTC: <input checked="" type="checkbox"/> General Terms and Conditions / Special Conditions for Contract. Applicable Terms and Conditions and other provisions are available at UNDP/How-we-buy
Special Conditions of Contract	<input checked="" type="checkbox"/> Liquidates damages shall be imposed as follows: 0.5% of contract price for every day of delay, up to a maximum duration of 1 calendar month, after which UNDP may terminate the contract.
Duties and taxes	Article II, Section 7, of the Convention on the Privileges and Immunities provides, inter alia, that the United Nations, including UNDP as a subsidiary organ of the General Assembly of the United Nations, is exempt from all direct taxes, except charges for public utility services, and is exempt from customs restrictions, duties, and charges of a similar nature in respect of articles imported or exported for its official use. All quotations shall be submitted net of any direct taxes and any other taxes and duties, unless otherwise specified in the requirements section. All prices must: <input checked="" type="checkbox"/> be exclusive of VAT and other applicable indirect taxes
Eligibility	A vendor who will be engaged by UNDP may not be suspended, debarred, or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization. Vendors are therefore required to disclose to UNDP whether they are subject to any sanction or temporary suspension imposed by these organizations. Failure to do so may result in termination of any contract or PO subsequently issued to the vendor by UNDP. It is the Bidder's responsibility to ensure that its ultimate beneficial owners, employees, joint venture members, sub-contractors, service providers, suppliers and/or their employees meet the eligibility requirements as established by UNDP. Bidders must have the legal capacity to enter a binding contract with UNDP and to deliver in the country, or through an authorized representative.
Language of quotation	Romanian OR English Including documentation including catalogues, instructions and operating manuals.
Quotation validity period	Quotations shall remain valid for 90 days from the deadline for the Submission of Quotation.
Partial Quotes	<input checked="" type="checkbox"/> Not permitted
Alternative Quotes	<input checked="" type="checkbox"/> Not permitted
Payment Terms	<input checked="" type="checkbox"/> 100% within 30 days after receipt of services and submission of payment documentation.
Liquidated damages	Will be imposed as follows: Percentage of contract price per day of delay: 0.5% up to a maximum of 1 calendar month, after which UNDP may terminate the contract.
Conditions for Release of Payment	<input checked="" type="checkbox"/> Written Acceptance of Services, based on full compliance with RFQ requirements
Clarifications	Bidders must send their inquiries and requests for clarifications using the messaging functionality in the portal. <u>PLEASE PAY ATTENTION: QUOTES SHALL NOT BE SUBMITTED TO ANY EMAIL ADDRESS BUT ONLY THROUGH THE PORTAL.</u> Requests for clarification from bidders will not be accepted any later than 2 days before the submission deadline. Responses to request for clarification will be communicated directly in the portal.

<p>Documents to be submitted</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Annex 2: Quotation Submission Form duly completed and signed <input checked="" type="checkbox"/> Annex 3: Technical and Financial Offer duly completed and signed and in accordance with the Schedule of Requirements in Annex 1. The technical offer shall include: <ul style="list-style-type: none"> • Proposed Methodology, Approach and Implementation Plan; • Maintenance and support services. <input checked="" type="checkbox"/> Company Profile, including detailed portfolio/previous corporate experience in similar fields related to the assignment, referring to the Stress Testing processes implemented (at least three) <input checked="" type="checkbox"/> Copy of registration documents (<i>if the applicant is a foreign entity, it should have local legal subsidiary or have at least one core auditor that is resident of the Republic of Moldova</i>) <input checked="" type="checkbox"/> List of completed contracts (at least 3) for similar services undertaken within the past 5 (five) years including the following information: <ul style="list-style-type: none"> • Name of previous contracts • Client & Reference Contact • Details including e-mail • Contract Value Period of activity • Types of services undertaken <input checked="" type="checkbox"/> Statement of satisfactory Performance (Certificates) from the top 2 (two) clients in terms of Contract value in similar field <input checked="" type="checkbox"/> Proven documentation (issued by established certified organizations) for System Security, confirming certification for at least the Security Management Systems ISO/IEC 27001 standard or equivalent <input checked="" type="checkbox"/> Completed and signed CVs for the proposed key Personnel, together with attestation certificates (if applicable) and training attendance certificates (if applicable/ e.g. diplomas, certifications) (valid at the date of presentation) clearly stipulating the relevant experience which meets the listed requirements, of the Key personnel (mentioned in Annex 1: Schedule of Requirements / Terms of Reference). Description of the non-key staff involved in the project should be attached, if applicable <input checked="" type="checkbox"/> Income Statements and Balance Sheets for the past 2 (two) years (2022, 2023)
<p>Evaluation method</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> The Contract will be awarded to the lowest price substantially compliant offer
<p>Evaluation criteria</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Full compliance with all requirements as specified in Annex 1 <input checked="" type="checkbox"/> Full acceptance of the General Conditions of Contract <input checked="" type="checkbox"/> Legal representation in the Republic of Moldova (<i>if the applicant is a foreign entity, it should have local legal subsidiary or have at least one core auditor that is resident of the Republic of Moldova</i>) <input checked="" type="checkbox"/> At least five (5) years of proven experience in providing similar services <input checked="" type="checkbox"/> At least three (3) Stress Testing processes implemented <input checked="" type="checkbox"/> Proposed key personnel with the minimum required academic and professional qualifications, proven by CVs submitted: <ul style="list-style-type: none"> <u>Key personnel 1: Project Manager:</u> <ul style="list-style-type: none"> • Bachelor's degree or higher in ICT, Management, Engineering or another relevant field; • Consistent knowledge of testing mechanisms required in the Terms of Reference; • At least 5 (five) years of experience in project management of projects on IT applications/systems, services, testing, etc.; • Proven experience in the successful implementation of at least 3 similar projects; • Fluency in Romanian language is required. Knowledge of English language is preferable. <u>Key personnel 2: Lead Tester:</u> <ul style="list-style-type: none"> • Bachelor's degree or higher in ICT or another relevant field; • Consistent knowledge of testing mechanisms required in the Terms of Reference; • At least 5 (five) years of experience in testing IT applications/systems, networks, infrastructure, services, etc.; • Proven experience in the successful implementation of at least 3 similar projects; • Fluency in Romanian language is required. Knowledge of English language is preferable. <u>Key personnel 3: Network and Infrastructure Analyst:</u> <ul style="list-style-type: none"> • Bachelor's degree or higher in ICT or another relevant field; • Consistent knowledge of testing mechanisms required in the Terms of Reference; • Proven experience in the successful implementation of at least 3 similar projects;

	<ul style="list-style-type: none"> • Fluency in Romanian language is required. Knowledge of English language is preferable.
Type of Contract to be awarded	<input checked="" type="checkbox"/> Contract Face Sheet (Goods and-or Services)
Expected date for contract award.	30 July 2024

ANNEX 1: SCHEDULE OF REQUIREMENTS

TERMS OF REFERENCE

Load and stress testing of the SAISE E-Day Application and CEC official website for the 2024 Presidential Elections and Referendum

Project title: Enhancing democracy in Moldova through inclusive and transparent elections (phase II)

Implementation period: July – November 2024

A. Background

Electoral support and capacity development are part of UNDP’s democratic governance assistance worldwide, through which UNDP helps nations build democratic frameworks to improve representation, accountability, and transparency for the benefit of citizens.

UNDP has a long-standing partnership with the Central Electoral Commission (CEC) aiming at advancing the democratic electoral processes in Moldova by consolidating the transparency and efficiency of elections’ management, modernization of electoral IT solutions and enhancing the inclusiveness and participation of voters. This partnership, which spans over 10 years, resulted in the establishment of a strong professional institution, development of a modern State Automated Information System “Elections” (SAISE), the enhancement of the State Register of Voters’ accuracy and the design and implementation of effective long-term civic and voter education instruments.

Since 2017, the Project “Enhancing democracy in Moldova through inclusive and transparent elections” supports the Central Electoral Commission to enhance the transparency and inclusiveness of the electoral process in Moldova by ensuring a more independent and credible electoral administration and better informed and pro-active citizens. With the continuous UNDP assistance, the CEC demonstrated a high capacity of carrying out transparent, safe and “well-administered” elections (as attested by OSCE/ODIHR Observation Mission) throughout challenging electoral cycles, particularly the 2020 Presidential Elections, organized in the context of the COVID-19 pandemic.

Building on the sustainable results achieved during its first phase of implementation (2017 – 2020), the objectives of the current Project phase (2020 – 2024) are:

- Enhance the inclusiveness of the electoral process by increasing the functional and technical capacities of the State Automated Information System “Elections” (SAISE);
- Enhance the political participation of citizens by setting up and implementing the voters’ information and civic education programs;
- Improve the legal and regulatory framework to respond to the EOM recommendations; and
- Strengthen the capacity for effective and coherent oversight and monitoring on political party financing.

Since 2014, UNDP’s support for the CEC informational ecosystem was aimed at enhancing IT structures and processes, particularly of the Commission’s core informational platform for elections management - SAISE.

In this context, the Project shall offer further specialized support to the CEC for enhancing IT structures and processes, including of the Commission’s core informational platform for elections management - SAISE.

Developed in 2014, SAISE is a complex system with multiple modules responsible for most electoral processes, ranging from the pre-registration of voters, operation of the polling stations and aggregation of election results. Since then, during each election, the CEC and UNDP have come up with new useful tools for voters and electoral officials, but also for a smooth running of the electoral process.

B. Scope of services and expected outputs

The Project is looking to contract a specialized Company to perform three (3) load and stress tests of the SAISE E-Day Application, CEC official website and E-Day online reporting website (info graphs), as follows:

✓ **Test no. 1 / Load and stress test of SAISE E-Day Application:**

This test is aimed to reproduce the E-Day Application behaviour during the Election Day. In case the problems are identified after Test no. 1 that will involve any changes (including at the architecture level), the test shall be adjusted and repeated in line with the operated modifications/corrections. In total – a minimum of two (2) and maximum of four (4) tests stages are expected to be performed by the Company.

✓ **Test no. 2 / Load and stress test of the CEC's web page (www.cec.md), particularly the reporting page(s):**

This second test is aimed to reproduce the workload of the official CEC web page, particularly the reporting page(s), during the Election Day/s and the following day. If the first and second stages of Test no. 2 will identify any problems, it will be necessary to adjust and repeat the test accordingly. In total – a minimum of two (2) and maximum of four (4) tests stages are expected.

✓ **Test no. 3 / Load and stress test of E-Day online reporting web site (info graphs):**

This test is aimed to reproduce the E-Day online reporting website (info graphs) during the Election Day. In case if problems are identified after Test no. 3 that will involve any changes (including at the architecture level), the test shall be adjusted and repeated in line with the operated modifications/corrections. In total – a minimum of two (2) and maximum of four (4) tests stages are expected to be performed by the Company. This test will be held/launched in parallel with Test no.1.

Note: These tests shall also identify the best method of tuning the IIS and balancing this type of connections.

Specifically, the Company will have the following responsibilities:

- Create test scenarios for load and stress testing;
- Prepare test environment/ set up load generation and monitoring tools;
- Execute tests/ monitor execution process;
- Provide execution report and suggestions;
- Act on the CEC's requests in 24 hours timeframe (general) and in 2 hours timeframe (for high priority issues).

C. Specific Requirements for Testing

1. Platform for testing

The tests shall be carried out on the platform provided by the Central Electoral Commission within the premises of the CEC. A local network of testing environment will be created for testing and it will be connected to the server infrastructure, accordingly. Design of the architecture will be provided upon request.

The following will be used at minimum at the level of technical infrastructure:

Test no. 1:

- 4 to 6 Webservers (ASPX) behind the load balancer
- 2 to 4 MS SQL servers

Testing environment for Test Load generation will be provided by CEC as follows:

- 2 to 6 Virtual Servers with 6 CPUs and 16 GB of RAM with OS Windows Server 2012 Std. preinstalled
- Network flow: internal traffic

Test no. 2:

- 2 NGINX Servers behind the load balancer
- 1x Cluster of DB Servers
- Type of connections flow: combined (external Internet traffic behind the balancer)

Testing environment for Test Load generation will be provided by CEC as follows:

- 2 to 4 Virtual Servers with 6 CPUs and 16 GB of RAM (or more) with OS Windows Server 2012 Std. preinstalled

- Network flow: external – internet traffic

Test no. 3:

- 2 to 4 IIS Web Servers behind the load balancer
- 2 to 4 MS SQL Servers
- Type of connections flow: combined (external internet traffic behind the balancer)

Testing environment for Test Load generation will be provided by CEC as follows:

- 4 to 8 Virtual Servers with 6 CPUs and 16 GB of RAM (or more) with OS Windows Server 2012 Std. preinstalled
- Network flow: external – internet traffic

2. Software recommended for testing

- Load generation tool for Test no. 1, 2 and 3: Apache Jmeter

Note: these tools are best suitable and available in opensource format, based on CEC’s prior experience and knowledge of the CEC IT personnel.

- Monitoring tools: Standard Windows tools or other related tools (e.g. PERFMON, Zabbix, etc.)

Note: these tools shall be accordingly configured by the Company, in collaboration with the CEC on the existing monitoring platforms.

3. Testing mechanism and used scenarios

Test no. 1:

The following test types/ test scenarios have been identified:

- Main Load Test - to be run for 14 hours with a varied load during the day

Note: it is required to maintain a high number of open sessions (4,400) with a various number of requests generated (average of 300 requests per second).

- Stress Test - to be run for 2 hours (average 500 requests per second)
- 2-3 Tests for E-Day Report sending - each lasting 15-20 minutes for 2,200 user sessions
- 2-3 Tests for Logins (peak/ normal test) - each lasting 15-20 minutes
- 2-3 Tests for Logouts (peak/ normal test) - each lasting 15-20 minutes

Test cases to be used for Test no. 1:

Case 1 “search of IDPN and vote”:

- Navigate to data entry page, enter full IDPN and start search. In case of successful search, press a button “A” (button name to be defined)
- Navigate to data entry page, enter full IDPN and start search. In case of unsuccessful search, press a button “B” (button name to be defined)
- Navigate to data entry page, enter incomplete IDPN and start search. Select from the available options and press button “A”
- Navigate to data entry page, enter invalid (non-existent) IDPN and start search. In case of unsuccessful search, press a button “B” (button name to be defined)
- Navigate to reporting page and send a report.

The workload model for Case 1 will assume:

- Average load on citizens search – 500 requests per second (or 500 requests per second for stress test)
- At the beginning of the day 4,400 clients will be logging in within 30 minutes timeframe
- At the end of the day 2,200 clients will be sending reports (within 15 minutes)

- At the end of the day 2,200 clients will be logging off in parallel with another 2,200 sending reports (within 15 minutes)
- During the day sporadic logins/logouts will be generated to emulate lunch break

Case 2 “send the report”:

- Navigate to Data entry page
- Select type of elections
- Fulfill tabs randomly (data input model will be provided)
- Click button “A” for check the correction of data
- Click button “B” for sending the data

The workload model for Case 2 will assume:

- Average load on input the data - 500 requests per second (or 500 requests per second for stress test)
- 2,200 authorized users will be sending the reports (within 8 to 15 minutes)
- During the test, sporadic logins/logouts will be generated to emulate log out/log in requests

Test no. 2:

The following test types/ test cases have been identified:

- Main Load Test - to be run for 16 hours with the peak load of 80,000 users having total of 80,000 ±18,000 established connections during these 16 hours;

Note: The step-up number of the connected users will be established before and/or during the preparation of the test’s scripts.

- Stress Test - to be run for 2 hours with an average of 11-14 connected users per second (established connections)

Test cases to be used for Test no. 2:

Case 1:

- Navigate to home page
- Click menu “A” of the web page
- Click button “A” (button name to be defined) – connection is established
- Each user within 6-8 minutes, randomly press refresh button
- Press again Button “A” (button name to be defined)

Case 2:

- Navigate to data entry page
- Select type “B” of the report for viewing
- Press Button “A” (button name to be defined) – connection is established
- Within 2-3 minutes, randomly press refresh button
- Press again Button “A” (button name to be defined)

Test no. 3:

The following test types/ test cases have been identified:

- Main Load Test - to be run for 16 hours with the peak load of 80,000 users having total of 80,000 ±18,000 established connections during these 16 hours

Note: The step-up number of the connected users will be established before and/or during the preparation of the test’s scripts.

- Stress Test - to be run for 2 hours with an average of 11-14 connected users per second (established connections).

Test cases to be used for Test no. 3:

Case 1:

- Navigate to data entry page
- Select type “A” (click on button) of the page report for viewing
- Press Button “A” (button name to be defined) – connection is established
- Each user within 6-8 minutes, randomly press refresh button
- Press again Button “A” (button name to be defined)

Case 2:

- Navigate to data entry page
- Select type “B” of the report for viewing
- Press Button “A” (button name to be defined) – connection is established
- Within 2-3 minutes, randomly press refresh button
- Press again Button “A” (button name to be defined)

D. Key deliverables and tentative timetable

No	Key deliverables	Tentative deadline
1.	<ul style="list-style-type: none">▪ Load and Stress Test No. 1 - performed;▪ Brief Report of the tests’ results shall include, but not limited to:<ul style="list-style-type: none">• Result synthesis;• List of identified deficiencies;• Recommendations for amending the applications and/or its infrastructure of the E-Day Application.	by 05 November 2024
2.	<ul style="list-style-type: none">▪ Load and Stress Test No. 2 - performed;▪ Brief Report of the tests’ results shall include, but not limited to:<ul style="list-style-type: none">• Result synthesis;• List of identified deficiencies;• Recommendations for amending the CEC’s web page and/or its infrastructure.	by 05 November 2024
3.	<ul style="list-style-type: none">▪ Load and Stress Test No. 3 - performed;▪ Brief Report of the tests’ results shall include, but not limited to:<ul style="list-style-type: none">• Result synthesis;• List of identified deficiencies;• Recommendations for amending the applications and/or its infrastructure of the E-Day online reporting web site (info graphs).	by 05 November 2024
4.	<ul style="list-style-type: none">▪ Local network of on-site support within the premises of the CEC on election days (i.e. 20 October and 03 of November) – provided.	by 15 November 2024
5.	<ul style="list-style-type: none">▪ Final Activity Report – developed and approved by the CEC and the Project.	by 15 November 2024
6.	<ul style="list-style-type: none">▪ One Summary Report on test results of Tests no.1, 2 and 3 developed and submitted for approval to the CEC and Project;▪ The Report shall include, but not limited to:	by 15 November 2024

	<ul style="list-style-type: none"> • Result synthesis; • List of identified deficiencies; • Recommendations for amending the applications and/or its infrastructure of: E-Day application (test no.1), CEC's web page (test no.2). E-Day On-Line reporting web site (Info Graphs) (test no.3). 	
7.	<ul style="list-style-type: none"> ▪ Testing scripts for all stages, as well as Virtual Machines created for the testing environment (with technical description on steps to be undertaken for future testing purposes) - developed and approved by the CEC and the Project. 	by 15 November 2024

E. Confidentiality statement

All data and information offered by the UNDP Project and CEC for the purpose of this assignment must be treated with confidentiality and must be used only for the purpose of activities stipulated by these Terms of Reference. All intellectual property rights that arise from the implementation of these Terms of Reference are attributed to UNDP. The content of materials obtained and used during the period of the contractual assignment cannot be disclosed to any third party without the written consent of the UNDP Project.

F. Required qualifications of the Company

Interested bidders should meet the following institutional requirements:

- Be a legally registered entity or a consortium of firms;
Note: if the applicant is a foreign entity, it should have local legal subsidiary or have at least one core auditor that is resident of the Republic of Moldova.
- At least five (5) years of proven technical knowledge and experience in designing and providing similar services;
- Proven experience in the implementation of at least 3 Stress Testing processes;
- Proven documentation (issued by established certified organizations) for System Security, confirming certification for at least the Security Management Systems ISO/IEC 27001 standard;
- Previous experience in the field of electoral systems will be considered a strong advantage.

The key personnel proposed by the bidder should meet the following minimum academic and professional qualifications, proven by CVs submitted:

Key personnel 1: Project Manager:

- Bachelor's degree or higher in ICT, Management, Engineering or another relevant field;
- Consistent knowledge of testing mechanisms required in the Terms of Reference;
- At least 5 (five) years of experience in project management of projects on IT applications/systems, services, testing, etc.;
- Proven experience in the successful implementation of at least 3 similar projects;
- Fluency in Romanian language is required. Knowledge of English language is preferable.

Key personnel 2: Lead Tester:

- Bachelor's degree or higher in ICT or another relevant field;
- Consistent knowledge of testing mechanisms required in the Terms of Reference;
- At least 5 (five) years of experience in testing IT applications/systems, networks, infrastructure, services, etc.;
- Proven experience in the successful implementation of at least 3 similar projects;
- Fluency in Romanian language is required. Knowledge of English language is preferable.

Key personnel 3: Network and Infrastructure Analyst:

- Bachelor's degree or higher in ICT or another relevant field;
- Consistent knowledge of testing mechanisms required in the Terms of Reference;
- Proven experience in the successful implementation of at least 3 similar projects;
- Fluency in Romanian language is required. Knowledge of English language is preferable.

G. Institutional arrangements

The Company shall fulfil its contractual assignments under the guidance and direct coordination of the Informational Technology and Electoral List Management Department of the Central Electoral Commission, and under the supervision of the UNDP Project Analyst.

The Central Electoral Commission will provide the Company with access to information and materials necessary for the fulfilment of the envisaged tasks (including requirements, user stories and access to analysts for implementation questions; and system architecture/ guidelines or preferences in implementation patterns). The EDMITE Project will provide administrative and logistic support, including for organizing the necessary meetings.

Deliverables (including report and testing scripts of the testing stages) will be approved by the designated CEC representative and UNDP Project. All documentation related to deliverables shall be provided by the Company in Romanian language.

Payments will be done in multiple tranches, upon presenting and approving the deliverables, as well as the activity report. The offer shall be **exclusive of VAT**.

H. Timeframe

Contractual assignments shall be initiated in July 2024 and shall be fully completed not later than the 15th of November 2024.

ANNEX 2: QUOTATION SUBMISSION FORM

Bidders are requested to complete this form, including the Company Profile and Bidder's Declaration, sign it and return it as part of their quotation along with Annex 3: Technical and Financial Offer. The Bidder shall fill in this form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.

Name of Bidder:	Click or tap here to enter text.	
RFQ reference:	RfQ24/ 02892: Load and stress testing of the SAISE E-Day Application and CEC official website for the 2024 Presidential Elections and Referendum	Date: Click or tap to enter a date.

Company Profile

Item Description	Detail
Legal name of bidder or Lead entity for JVs	Click or tap here to enter text.
Legal Address, City, Country	Click or tap here to enter text.
Website	Click or tap here to enter text.
Year of Registration	Click or tap here to enter text.
Legal structure	Choose an item.
Are you a UNGM registered vendor?	<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, insert UNGM Vendor Number
Quality Assurance Certification (e.g. ISO 9000 or Equivalent) (If yes, provide a Copy of the valid Certificate):	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your Company hold any accreditation such as ISO 14001 or ISO 14064 or equivalent related to the environment? (If yes, provide a Copy of the valid Certificate):	<input type="checkbox"/> Yes <input type="checkbox"/> No
Does your Company have a written Statement of its Environmental Policy? (If yes, provide a Copy)	<input type="checkbox"/> Yes <input type="checkbox"/> No

Does your organization demonstrate significant commitment to sustainability through some other means, for example internal company policy documents on women empowerment, renewable energies or membership of trade institutions promoting such issues <i>(If yes, provide a Copy)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Is your company a member of the UN Global Compact	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Bank Information	Bank Name: Click or tap here to enter text. Bank Address: Click or tap here to enter text. IBAN: Click or tap here to enter text. SWIFT/BIC: Click or tap here to enter text. Account Currency: Click or tap here to enter text. Bank Account Number: Click or tap here to enter text.			
Previous relevant experience: 3 contracts of similar complexity developed within the last 5 years				
Name of previous contracts	Client & Reference Contact Details including e-mail	Contract Value <i>(indicate currency)</i>	Period of activity <i>(month/year)</i>	Types of activities undertaken

Bidder's Declaration

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	Requirements and Terms and Conditions: I/We have read and fully understand the RFQ, including the RFQ Information and Data, Schedule of Requirements, the General Conditions of Contract, and any Special Conditions of Contract. I/we confirm that the Bidder agrees to be bound by them.
<input type="checkbox"/>	<input type="checkbox"/>	I/We confirm that the Bidder has the necessary capacity, capability, and necessary licenses to fully meet or exceed the Requirements and will be available to deliver throughout the relevant Contract period.
<input type="checkbox"/>	<input type="checkbox"/>	Ethics: In submitting this Quote I/we warrant that the bidder: has not entered into any improper, illegal, collusive or anti-competitive arrangements with any Competitor; has not directly or indirectly approached any representative of the Buyer (other than the Point of Contact) to lobby or solicit information in relation to the RFQ ;has not attempted to influence, or provide any form of personal inducement, reward or benefit to any representative of the Buyer.

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	I/We confirm to undertake not to engage in proscribed practices, , or any other unethical practice, with the UN or any other party, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the UN and we have read the United Nations Supplier Code of Conduct : https://www.un.org/Depts/ptd/about-us/un-supplier-code-conduct and acknowledge that it provides the minimum standards expected of suppliers to the UN.
<input type="checkbox"/>	<input type="checkbox"/>	Conflict of interest: I/We warrant that the bidder has no actual, potential, or perceived Conflict of Interest in submitting this Quote or entering a Contract to deliver the Requirements. Where a Conflict of Interest arises during the RFQ process the bidder will report it immediately to the Procuring Organisation’s Point of Contact.
<input type="checkbox"/>	<input type="checkbox"/>	Prohibitions and Sanctions: I/We hereby declare that our firm, ultimate beneficial owners, affiliates or subsidiaries or employees, including any JV/Consortium members or subcontractors or suppliers for any part of the contract is not under procurement prohibition by the United Nations, including but not limited to prohibitions derived from the Compendium of United Nations Security Council Sanctions Lists and have not been suspended, debarred, sanctioned or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization.
<input type="checkbox"/>	<input type="checkbox"/>	Bankruptcy: I/We have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against them that could impair their operations in the foreseeable future.
<input type="checkbox"/>	<input type="checkbox"/>	Offer Validity Period: I/We confirm that this Quote, including the price, remains open for acceptance for the Offer Validity.
<input type="checkbox"/>	<input type="checkbox"/>	I/We understand and recognize that you are not bound to accept any Quotation you receive, and we certify that the goods offered in our Quotation are new and unused.
<input type="checkbox"/>	<input type="checkbox"/>	By signing this declaration, the signatory below represents, warrants and agrees that he/she has been authorised by the Organization/s to make this declaration on its/their behalf.

Signature: _____

Name: Click or tap here to enter text.

Title: Click or tap here to enter text.

Date: Click or tap to enter a date.

ANNEX 3: TECHNICAL AND FINANCIAL OFFER - SERVICES

Bidders are requested to complete this form, sign it and return it as part of their quotation along with Annex 2 Quotation Submission Form. The Bidder shall fill in this form in accordance with the instructions indicated. No alterations to its format shall be permitted and no substitutions shall be accepted.

Name of Bidder:	Click or tap here to enter text.	
RFQ reference:	RfQ24/ 02892: Load and stress testing of the SAISE E-Day Application and CEC official website for the 2024 Presidential Elections and Referendum	Date: Click or tap to enter a date.

Technical Offer

Provide the following:

- a brief description of your qualification, capacity and expertise that is relevant to the Terms of Reference;
- a brief methodology, approach and implementation plan;
- team composition and CVs of key personnel.

Financial Offer

Provide a lump sum for the provision of the services stated in the Terms of Reference your technical offer. The lump sum should include all costs of preparing and delivering the Services. All daily rates shall be based on an eight-hour working day.

Currency of Quotation: US Dollars (USD) for international companies and Moldovan Leu (MDL) for local companies

Ref	Description of Deliverables	Price (VAT 0%) <i>(please indicate currency)</i>
1.	Load and Stress Test No. 1 – performed.	
2.	Load and Stress Test No. 2 – performed.	
3.	Load and Stress Test No. 3 – performed.	
4.	Local network of on-site support within the premises of the CEC on election days (i.e. 5 and 19 of November) – provided.	
5.	Final Activity Report – developed and approved by the CEC and the Project.	
6.	One Summary Report on test results of Tests no.1, 2 and 3 developed and submitted for approval to the CEC and Project.	
7.	Testing scripts for all stages, as well as Virtual Machines created for the testing environment (with technical description on steps to be undertaken for future testing purposes) - developed and approved by the CEC and the Project.	

Total Price	
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Breakdown of Fees

Personnel / other elements	UOM	Qty	Unit Price (VAT 0%) <i>(please indicate currency)</i>	Total Price (VAT 0%) <i>(please indicate currency)</i>
Personnel				
Project Manager	day			
Lead Tester	day			
Network and Infrastructure Analyst	day			
Other non-key personnel <i>(to be included, if any)</i>	day			
Other expenses				
Other Costs: (please specify)				
Total				

Compliance with Requirements

	Your Responses		
	Yes, we will comply	No, we cannot comply	If you cannot comply, pls. indicate counter - offer
Delivery Lead Time	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Validity of Quotation – 90 days	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Payment terms	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Full acceptance of the General Conditions of the Contract	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.
Availability of legal representation in the Republic of Moldova	<input type="checkbox"/>	<input type="checkbox"/>	Click or tap here to enter text.

I, the undersigned, certify that I am duly authorized to sign this quotation and bind the company below in event that the quotation is accepted.	
<p><i>Exact name and address of company</i></p> <p>Company Name: Click or tap here to enter text.</p> <p>Address: Click or tap here to enter text.</p> <p>Phone No.: Click or tap here to enter text.</p> <p>Email Address: Click or tap here to enter text.</p>	<p>Authorized Signature: _____</p> <p>_____</p> <p>Date: Click or tap here to enter text.</p> <p>Name: Click or tap here to enter text.</p> <p>Functional Title of Authorised Signatory: Click or tap here to enter text.</p>

	Email Address: Click or tap here to enter text.
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