

Date: March 07, 2024

## REQUEST FOR QUOTATION RFQ Nº UNFPA/MDA/RFQ/2024/004

Dear Sir/Madam,

UNFPA hereby solicits a quotation for the following service:

"Comprehensive testing services of the Information System and IT Infrastructure dedicated to the 2024 Population and Housing Census in the Republic of Moldova".

UNFPA requires the provision of Comprehensive testing services for the Information System and IT Infrastructure dedicated to the 2024 Population and Housing Census in the Republic of Moldova. This includes load testing, stress testing, stability testing, and security (penetration) testing.

#### I. About UNFPA

UNFPA, the United Nations Population Fund (UNFPA), is an international development agency that works to deliver a world where every pregnancy is wanted, every child birth is safe and every young person's potential is fulfilled.

UNFPA is the lead UN agency that expands the possibilities for women and young people to lead healthy sexual and reproductive lives. To read more about UNFPA, please go to: <u>UNFPA about us</u>

#### II - Service Requirements/Terms of Reference (ToR)

#### Objectives and scope of the Services

Background information

The population and housing census represents one of the pillars for data collection on the number and characteristics of the population of a country. It should form a central part of an integrated national statistical system. The UN Economic and Social Council (ECOSOC) adopted a resolution in 2015 urging "Member States to conduct at least one population and housing census under the 2020 World Population and Housing Census Programme. Based on international and regional recommendations relating to population and housing censuses and giving particular attention to advance planning, cost efficiency, coverage, and the timely dissemination of, and easy access to, census results for national stakeholders, the UN and other appropriate intergovernmental organisations in order to inform decisions and facilitate the effective implementation of development plans and programmes".

Since the declaration of independence of the Republic of Moldova, the National Bureau of Statistics conducted 3 censuses, one of the population in 2004 (which was part of the 2000 world round); one of the population and housing in 2014 and one agricultural in 2011, both have qualified for the 2010 world rounds. An independent evaluation of the previous census showed systemic challenges in implementation of the methodology, which affected the overall data collection process. Considering the evolution of ICT in





conducting censuses and for assuring a better quality of the census data, the data collection for PHC2024 plans to adopt innovative data collection tools: CAPI – Computer-Assisted Personal Interviewing using mobile devices and the use of administrative data sources at various census stages.

#### Objectives of the assignment.

The National Bureau of Statistics deployed the informational system for the 2024 Population and Housing Census in the M-Cloud Governmental Cloud Platform, in accordance with the provisions of Government Decision no. 414 of 08.05.2018 regarding measures to consolidate data centers in the public sector and rationalize the administration of state information systems. According to the governmental decision the "Information Technology and Cybersecurity Service" (STISC) as the owner of the common government platform (MCloud) and provider of laaS services, is empowered to ensure the administration and its management.

The following system configuration was established for the Population and Housing Census Purposes in the governmental Mcloud platform:

- I. One Load Balancer server
- II. Two Applications Servers
- III. Two Database Servers

The hardware and software configurations will be presented to the company selected for the provision of the requested services.

The data collection will be performed by using PC Tablets, Android Based (Versions 13 and 14), using the CSEntry (CSPro Data Entry, version 7.7.3) software.

The present assignment entails the execution of two testing phases on the IT infrastructure and Informational System deployed for the 2024 Population and Housing Census. Each phase will involve an exhaustive battery of tests aimed at pinpointing any deficiencies in the infrastructure and security vulnerabilities within the informational system designed for data collection as well as its resistance to loads and stress.

The initial testing round is expected to conclude with the delivery of a comprehensive report detailing the testing outcomes along with explicit recommendations for enhancements. After the beneficiary's implementation of the recommended adjustments to the infrastructure and software, the second testing round becomes imperative. This subsequent round aims to verify the effective implementation of the recommendations and is accompanied by the submission of a detailed report.

#### Activities

The following minimum set of activities is required to be performed:

- Testing the performance of the Population and Housing Census (PHC) system under conditions as close as possible to the actual conditions in which the system will operate, and by simulating real users.
- Performance tests using a specialized web application testing software (e.g. Apache JMeter), which
  will run on one or several computers (servers) physically located on the territory of the Republic of
  Moldova (preferably in Chisinau), with a connection to Internet resources in the Republic of
  Moldova of at least 1 Gbps.
- The application used for testing must be able to simulate the following PHC system operations:
  - o User login into the system (with necessary authentication).
  - Downloading the main menu / main page.
  - Downloading dictionaries / maps / geospatial information.





- Submitting a census questionnaire.
- o Submitting a batch of several census questionnaires.
- o Generating a simple report.
- o Generating a report that requires data processing / aggregation / calculation.
- User logout from the system.
- The application used for testing must provide information about the response time when performing operations. Acceptable response times are:
  - User login into the system: < 3 seconds.</li>
  - Downloading the main menu / main page: < 3 seconds.</li>
  - o Downloading dictionaries / maps / geospatial information: < 10 seconds.
  - Submitting a census questionnaire: < 4 seconds.</li>
  - Submitting a batch of 15 census questionnaires: < 10 seconds.</li>
  - o Generating a simple report: < 8 seconds.
  - o Generating a complex report: < 30 seconds.
  - o User logout from the system: < 3 seconds.
- Before starting the testing process the system will be initialized with test data:
  - The necessary dictionaries, geospatial information, and other necessary information will be entered.
  - o 4400 test users will be generated in the system.
  - o The database will not contain any completed questionnaires.
- After the test process is completed, the test data will be deleted, the database will be cleaned, the
  test users will be removed.
- During the tests, the basic parameters of the servers will be monitored:
  - o CPU load (%)
  - o RAM used (%)
  - Disk space used (%)
  - Network interface load (%)

#### Test scenarios:

**Scenario 1**: Simultaneous login of a large number of users.

Login of 4400 users is simulated, without performing other operations.

After successful login, user logoff is simulated.

The purpose of the scenario is to test whether the system allows simultaneous login of all users into the system.

During the test it is necessary to monitor the basic parameters of the servers:

- 01Recens-Prod-PRXAPP01
- 01Recens-Prod-CSWebAPP01
- 01Recens-Prod-CSWebDB01

Scenario 2: Log in, download dictionaries / maps / geospatial information, log out.

These operations will be simulated for 100 concurrent users.

During the test it is necessary to monitor the response times and basic parameters of the servers:

- 01Recens-Prod-PRXAPP01
- 01Recens-Prod-CSWebAPP01
- 01Recens-Prod-CSWebDB01

**Scenario 3**: Log in, submit a questionnaire, log out.

These operations will be simulated for 100 concurrent users, then 500 users, then 1000 users. The





questionnaires will be filled-in with random data, but consistent with the dictionaries.

During the test it is necessary to monitor the response times and basic parameters of the servers:

- 01Recens-Prod-PRXAPP01
- 01Recens-Prod-CSWebAPP01
- 01Recens-Prod-CSWebDB01

Scenario 4: Log in, submit a batch of 15 questionnaires, log out.

These operations will be simulated for 100 concurrent users, then 500 users, then 1000 users. The questionnaires will be filled-in with random data, but consistent with the dictionaries.

During the test it is necessary to monitor the response times and basic parameters of the servers:

- 01Recens-Prod-PRXAPP01
- 01Recens-Prod-CSWebAPP01
- 01Recens-Prod-CSWebDB01

**Scenario 5**: Log in, generate a simple report, log out.

These operations will be simulated for 50 concurrent users.

During the test it is necessary to monitor the response times and basic parameters of the servers:

- 01Recens-Prod-PRXAPP01
- 01Recens-Prod-MonAPP01
- 01Recens-Prod-MonDB01

**Scenario 6**: Log in, generate a complex report, log out.

These operations will be simulated for 20 concurrent users.

During the test it is necessary to monitor the response times and basic parameters of the servers:

- 01Recens-Prod-PRXAPP01
- 01Recens-Prod-MonAPP01
- 01Recens-Prod-MonDB01

**Scenario 7**: Sending a number of 3500000 questionnaires into the system (roughly the population number of Moldova).

This scenario tests the database's ability to handle a large number of questionnaires.

The questionnaires will be filled-in with random data, but consistent with the dictionaries.

During the test it is necessary to monitor the response times and basic parameters of the servers:

- 01Recens-Prod-CSWebDB01
- 01Recens-Prod-MonDB01

Additionally, the company has to present and agree with the National Bureau of Statistics ICT department the methodology of security (penetration) testing prior to the performance of the security tests.

#### Outputs / Deliverable(s)

No.	Key deliverables	Expected workday load
1.	<ul> <li>Getting acquainted with the technological infrastructure and software solutions used by the National Bureau of Statistics for the Population and Housing Census</li> <li>Development of security and load testing scenarios and agreement of the scenarios with the National Bureau of Statistics</li> </ul>	2 days





2.	<ul> <li>Performance of the first phase of load and security tests</li> <li>Presentation of the report to the NBS with clear recommendations for improvement</li> </ul>	3 days
3.	<ul> <li>Performance of the second phase of load and security tests</li> <li>Development of the draft final report, containing the full description of the phase 1 and phase 2 testing results and its presentation to the NBS</li> </ul>	3 days
4.	<ul> <li>Final Report – developed and approved by the National Bureau of Statistics.</li> <li>Transfer of all used testing scripts to NBS</li> </ul>	3 days

#### **Qualifications of the Successful Service Provider at Various Levels**

Interested organizations should meet the following qualification requirements:

- Be a legally registered entity in Republic of Moldova or a consortium of firms (to have access to STISC environment);
- If the applicant is a foreign entity, it should have local legal subsidiary or have at least one core auditor that is a Moldovan resident.
- Possess minimum 3 years of proven technical knowledge and experience in designing and providing similar services;
  - Possess documents or diplomas issued by established certified organizations that would confirm certification for at least the Quality Management Systems ISO 9001 and Security Management Systems ISO/IEC 27001 standards;
- Key personnel proposed to perform the testing work must possess advanced experience in using the hardware and software platform required for testing:
  - The project team proposed by the bidder should meet the following requirements:
    - ICT university degree.
    - Proof of experience in the implementation of similar projects/programs (stress/load testing, penetration or security testing). Letters of reference should be provided by the applicant for minimum 1 similar project developed and implemented per project team;
    - At least one person in the project team must be fully competent in the field of Information Security Management Systems ISO 27001:2005;
- Core staff has to communicate in Romanian orally and in writing. For managerial and support staff the knowledge of English language would be an advantage.

#### II. Questions

Questions or requests for further clarifications should be submitted in writing to the contact person below:

Name of contact person at UNFPA:	Natalia Constantin, Finance and Administrative Coordinator, Procurement Focal Point
Email address of contact person:	constantin@unfpa.org





The deadline for submission of questions is **Monday, 11 March 2024, 16:30, Moldova Local Time.** Questions will be answered in writing and shared with all parties as soon as possible after this deadline.

#### III. Eligible Bidders

This Request for Quotation is open to all eligible bidders; to be considered an eligible bidder for this solicitation process you must comply with the following:

- A bidder must be a legally-constituted company that can provide the requested services and have legal capacity to enter into a contract with UNFPA to perform in the country, or through an authorized representative.
- A bidder must not have a conflict of interest regarding the solicitation process or with the TORs / Technical Specifications. Bidders found to have a conflict of interest shall be disqualified.
- At the time of Bid submission, the bidder, including any JV/Consortium members, is not under procurement prohibitions derived from the <u>Compendium of United Nations Security Council</u> <u>Sanctions Lists</u> and has not been suspended, debarred, sanctioned or otherwise identified as ineligible by any <u>UN Organization</u> or the <u>World Bank Group</u>.
- Bidders must adhere to the UN Supplier Code of Conduct, which may be found by clicking on <u>UN</u>
   Supplier Code of Conduct.

#### IV. Content of quotations

Quotations should be submitted in a single email whenever possible, depending on file size. Quotations must contain:

- a) Technical proposal, in response to the requirements outlined in the service requirements / TORs.
- b) Signed Declaration Form, to be submitted strictly in accordance with the document.
- c) Price quotation, to be submitted strictly in accordance with the price quotation form

Both parts of the quotation must be signed by the bidding company's relevant authority and submitted in PDF format.

#### V. Instructions for submission

Proposals should be prepared based on the guidelines set forth in Section III above, along with a properly filled out and signed price quotation form and are to be sent by email to the contact person indicated below no later than: **Thursday, March 14**<sup>th</sup> **2024 at 16:30, Moldova Local Time.**<sup>2</sup>

Name of contact person at UNFPA:	Natalia Constantin, Finance and Administrative Coordinator, Procurement Focal Point
Email address of contact person:	constantin@unfpa.org

Please note the following guidelines for electronic submissions:

• The following reference must be included in the email subject line: RFQ № UNFPA/MDA/RFQ/2024/004 – Comprehensive testing services of the Information System and IT Infrastructure dedicated to the 2024 Population and Housing Census in the Republic of Moldova. Proposals, including both technical and financial proposals, that do not contain the correct email subject line may be overlooked by the procurement officer and therefore not considered.



<sup>&</sup>lt;sup>1</sup> http://www.timeanddate.com/worldclock/city.html?n=69

<sup>&</sup>lt;sup>2</sup> http://www.timeanddate.com/worldclock/city.html?n=69



- The total email size may not exceed 20 MB (including email body, encoded attachments and headers).
   Where the technical details are in large electronic files, it is recommended that these be sent separately before the deadline.
- Any quotation submitted will be regarded as an offer by the bidder and does not constitute or imply the
  acceptance of any quotation by UNFPA. UNFPA is under no obligation to award a contract to any bidder
  as a result of this RFQ.

#### VI. Overview of Evaluation Process

Quotations will be evaluated based on the technical proposal and the total cost of the services (price quote).

The evaluation will be carried out in a two-step process by an ad-hoc evaluation panel. Technical proposals will be evaluated for technical compliance prior to the comparison of price quotes.

#### VII. Award Criteria

In case of a satisfactory result from the evaluation process, UNFPA intends to award a Professional Service Contract on a fixed-cost basis or ceiling prices basis to the Bidder(s) that obtain the lowest-priced technically acceptable offer.

#### VIII. Right to Vary Requirements at Time of Award

UNFPA reserves the right at the time of award of contract to increase or decrease, by up to 20%, the volume of services specified in this RFQ without any change in unit prices or other terms and conditions.

#### IX. Payment Terms

UNFPA payment terms are net 30 days upon receipt of invoice and delivery/acceptance of the milestone deliverables linked to payment as specified in the contract.

#### X. Fraud and Corruption

UNFPA is committed to preventing, identifying, and addressing all acts of fraud against UNFPA, as well as against third parties involved in UNFPA activities. UNFPA's Policy regarding fraud and corruption is available here: <u>Fraud Policy</u>. Submission of a proposal implies that the Bidder is aware of this policy.

Suppliers, their subsidiaries, agents, intermediaries and principals must cooperate with the UNFPA Office of Audit and Investigations Services as well as with any other oversight entity authorized by the Executive Director and with the UNFPA Ethics Advisor as and when required. Such cooperation shall include, but not be limited to, the following: access to all employees, representatives agents and assignees of the vendor; as well as production of all documents requested, including financial records. Failure to fully cooperate with investigations will be considered sufficient grounds to allow UNFPA to repudiate and terminate the Agreement, and to debar and remove the supplier from UNFPA's list of registered suppliers.

A confidential Anti-Fraud Hotline is available to any Bidder to report suspicious fraudulent activities at <u>UNFPA</u> <u>Investigation Hotline</u>.

#### XI. Zero Tolerance

UNFPA has adopted a zero-tolerance policy on gifts and hospitality. Suppliers are therefore requested not to send gifts or offer hospitality to UNFPA personnel. Further details on this policy are available here: Zero Tolerance Policy.

#### XII. RFQ Protest





Bidder(s) perceiving that they have been unjustly or unfairly treated in connection with a solicitation, evaluation, or award of a contract may submit a complaint to the UNFPA Head of the Business Unit, Dr. Karina Nersesyan, UNFPA Representative in the Republic of Moldova at <a href="mailto:nersesyan@unfpa.org">nersesyan@unfpa.org</a>. Should the supplier be unsatisfied with the reply provided by the UNFPA Head of the Business Unit, the supplier may contact the Chief, Supply Chain Management Unit at <a href="mailto:procurement@unfpa.org">procurement@unfpa.org</a>.

#### XIII. Disclaimer

Should any of the links in this RFQ document be unavailable or inaccessible for any reason, bidders can contact the Procurement Officer in charge of the procurement to request for them to share a PDF version of such document(s).

Thank you, and we look forward to receiving your quotation.

#### NAME, FUNCTIONAL TITLE:

Dr. Karina Nersesyan, UNFPA Representative in the Republic of Moldova

Karina Nersesyan 06-Mar-2024
Signature \_\_\_\_\_\_ Date: \_\_\_\_\_



### **PRICE QUOTATION FORM**

Name of Bidder:			
Date of the quotation:	Click here to enter a date.		
Request for quotation №: UNFPA/MDA/RFQ/2024/004			
<b>Currency of quotation:</b>	MDL		
Validity of quotation:			
(The quotation shall be valid for a period of at least 3 months after the submission deadline.)			

• Quoted rates must be **exclusive of all taxes**, since UNFPA is exempt from taxes.

Item	Description	Number & Descriptio n of Staff by Level	Hourly Rate	Hours to be Committed	Total
1. Pr	rofessional Fees				
1.1	Development of security and load testing scenarios				
1.2	Performance of the first phase of load and security tests, development of the first phase testing report				
1.3	Performance of the second phase of load and security tests, development of the draft final report.				
1.4	Submit the agreed final report to beneficiary.				
Total Professional Fees		MDL			
2. Pl	2. Please add as many other expenses as estimated				
Total Other Expenses			MDL		
	Total Contract Price (Professional Fees + Other Expenses)		MDL		

quotation until it expires.		
I hereby certify that the company mentioned above, very RFQ UNFPA/MDA/RFQ/2024/004 including all annexe and the responses provided by UNFPA on clarification Further, the company accepts the General Condition	s, amendments to the RFQ n questions from the prosp	document (if applicable) pective service providers.
Vendor's Comments:		



#### **DECLARATION FROM**

The undersigned, being a duly authorized representative of the Company represents and declares that:

1.	The Company and its Management <sup>3</sup> have not been found guilty pursuant to a final judgement or a final administrative decision of any of the following:		NO
	a. Fraud;		
	b. Corruption;		
	c. conduct related to a criminal organization;		
	d. money laundering or terrorist financing;		
	e. terrorist offences or offences linked to terrorist activities;		
	f. sexual exploitation and abuse;		
	g. child labour, forced labour, human trafficking; or		
	h. irregularity (non-compliance with any legal or regulatory requirement applicable to the Organization or its Management).		
2.	The Company and its Management have not been found guilty pursuant to a final judgment or a final administrative decision of grave professional misconduct.		

<sup>&</sup>lt;sup>3</sup> "Management" means any person having powers of representation, decision-making or control over the Organization. This may include, for example, executive management and all other persons holding downstream managerial authority, anyone on the board of directors, and controlling shareholders.





Name and Title:

Name of the Company:

United Nations Population Fund 131, 31 August str. Chisinau, Moldova Email: moldova.office@unfpa.org Website: https://moldova.unfpa.org

3.	The Company and its Management are not: bankrupt, subject to insolvency or winding-up procedures, subject to the administration of assets by a liquidator or a court, in an arrangement with creditors, subject to a legal suspension of business activities, or in any analogous situation arising from a similar procedure provided for under applicable national law.		
4.	The Company and its Management have not been the subject of a final judgment or a final administrative decision finding them in breach of their obligations relating to the payment of taxes or social security contributions.		
5.	The Company and its Management have not been the subject of a final judgment or a final administrative decision which found they created an entity in a different jurisdiction with the intent to circumvent fiscal, social or any other legal obligations in the jurisdiction of its registered office, central administration, or principal place of business ( <i>creating a shell company</i> ).		
6.	The Company and its Management have not been the subject of a final judgment or a final administrative decision which found the Company was created with the intent referred to in point (5) (being a shell company).		
arrangem of any mis	PA reserves the right to disqualify the Company, suspend or term ent between the UNFPA and the Company, with immediate effect and srepresentation made by the Company in this Declaration.  The esponsibility of the Company to immediately inform the UNFPA of a labove.	without lial	oility, in the
	aration is in addition to, and does not replace or cancel, or operate al arrangements between the UNFPA and the Company.	as a waiver	of, any ten
Date:			

	Website: https://moldova.unfpa.or
UNGM №:	
Postal Address:	
Email:	

United Nations Population Fund 131, 31 August str. Chisinau, Moldova Email: moldova.office@unfpa.org



# ANNEX I: General Conditions of Contracts: De Minimis Contracts

This Request for Quotation is subject to UNFPA's General Conditions of Contract: De Minimis Contracts, which are available in: <u>English</u>, <u>Spanish</u> and <u>French</u>