

**REQUEST FOR EXPRESSIONS OF INTEREST**  
**(REoI# MF-IC-11)**  
**(CONSULTING SERVICES – INDIVIDUAL CONSULTANT)**

UKRAINE

STRENGTHENING PUBLIC RESOURCE MANAGEMENT PROJECT, PART B: SUPPORT TO PFM STRATEGY IMPLEMENTATION (PROJECT NUMBER P161586)

Grant No. TF0A5324

Assignment Title: IT Architect

Reference No. MF-IC-11

The Government of Ukraine has received financing from the World Bank acting as administrator of the grant funds provided by the European Commission on behalf of the European Union under the EC - World Bank Partnership Program for Europe and Central Asia Trust Fund (EU Programme for the Reform of Public Administration and Finances (EUroPAF) toward the cost of the Strengthening Public Resource Management Project, and intends to apply part of the proceeds for consulting services.

The Ministry of Finance of Ukraine (“MoF”) is responsible for the implementation of Part B of the Project and, to strengthen its capacity with regard to Project implementation, involves through competition an individual consultant on development of optimal architectural solutions – IT Architect (“Consultant”) to provide support in preparation of the framework Strategy for Development of IT Systems in the Field of Public Finance, namely with regard to building up a centralized IT architecture and definition of optimal technological solutions for efficient implementation of the IT centralization process.

The purpose of the works performance of this assignment to provide support to MoF in building up a general IT architecture of MoF, the State Tax Service of Ukraine, the State Customs Service of Ukraine, and the State Treasury Service of Ukraine, which is to become the basis for the Strategy of IT Systems Development in the Field of Public Finance Management and to ensure coordination of IT projects/initiatives with the PFM Strategy, including feasibility analysis and preparation of proposals on creation of the Single Inter-Sectoral Data Storage of MoF, the State Treasury Service of Ukraine, the State Tax Service of Ukraine, and the State Customs Service of Ukraine.

The objectives of this assignment are expected to be achieved through:

- development of recommendations to the draft Strategy of IT Systems Development in the Field of Public Finance Management in terms of building up and operation of a centralized architecture and implementation of cloud-based technologies in the Public Finance Management system;
- analysis and formation of the list of cloud services, working out the implementation plan and efficiency indicators;

- development of the plan of creation of a Shared Service Center with a common data storage space for MoF, the State Tax Service of Ukraine, the State Customs Service of Ukraine, and the State Treasury Service of Ukraine.

The Services are to be rendered at Consultant`s place of residence.

The Consultant is expected to work throughout the period from November 2020 to March 2021.

The expected working time spent generally shall not exceed 90 working days.

More detailed information is stipulated in the ToR which is attached.

The MoF now invites eligible individual international consultants – physical persons (“Candidates”) to indicate their interest in providing the Services in the form of CV (in Ukrainian or English). Interested candidates should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services.

The candidates shall provide confirmation in the form of references to publicly confirmed and accessible information, or provide copies of relevant documents confirming the respective status or condition.

Interested Candidates are invited to submit any supplementary documents to evidence that Candidate meets with the qualification criteria for the position of the Consultant.

#### Mandatory qualification of the Consultant:

- higher technical education (Master's or Specialist's Degree in "information technologies", "automated management systems", "telecommunications", "communications" or similar);
- at least 10 years of overall industry experience, including experience of doing similar work at an organization comparable in scale and complexity should be emphasized;
- experience in performing similar assignments in terms of scope and complexity in at least one project for a government agency;
- experience in implementation of virtualization systems of the "Enterprise" level;
- experience in the development of architecture of cloud solutions;
- fluent speaking and writing in Ukrainian;
- knowledge of English on upper-intermediate level.

The attention of interested Candidates is especially drawn to additional Consultants qualification requirements corresponding to the peculiarities of the assignment, meeting them would be an advantage:

- availability of VMware Professional Certification (VCP-DCV, VCP-DTM, VCP-NV);
- availability of MCSE: Private Cloud certificate;
- availability of the IBM System/Power Systems PowerVM Implementing certificate;
- experience of work with applications containerizing and industrial orchestration of containers;
- experience of work with following systems: VMware vRealise, VMware Horizon, VMware vCloud, VMware vRealize Orchestrator, IBM PowerVM Virtualization;
- experience in building up solutions based on the cloud computation architecture;
- knowledge of the main Microsoft server services, network services (DNS, DHCP, VLAN, VPN);

- experience in administering server operation systems (for instance, MS Server, Solaris, AIX etc.), or virtualization platforms (for instance, VMware, Hyper-V etc.), or database management systems (for instance, MSSQL, Oracle etc.);
- experience of work with Cisco or similar network equipment.

The attention of interested Candidates is drawn to Section III, paragraphs, 3.14,3.16, and 3.17 of the World Bank’s [“Procurement Regulations for IPF Borrowers”, July 1, 2016 with revisions as of November 2017 and August 2018](#) (“Procurement Regulations”), setting forth the World Bank’s policy on conflict of interest.

A Consultant will be selected in accordance with the Selection of Individual Consultants method (IC) set out in the Procurement Regulations.

Interested Candidates may obtain further information at the address below during office hours: 10:00 to 18:00.

Contact person: Volodymyr Vorotyuk

Tel: +38 044 206 5773, 380 50 4100340

E-mail: [vorotyuk@outlook.com](mailto:vorotyuk@outlook.com)

Expressions of interest must be delivered by mail, fax or e-mail to the address below by 5 pm on November 24, 2020.

For EoIs submission:

Ministry of Finance of Ukraine

Attn: Mr. Igor Shevliakov, Head, Expert Group for EU Integration, Directorate for Strategic Planning and European Integration

The letter subject is – “Expression of interest on - MF-IC-11, IT Architect

E-mail: [shevliakov@minfin.gov.ua](mailto:shevliakov@minfin.gov.ua) mandatory copy to: [vorotyuk@outlook.com](mailto:vorotyuk@outlook.com).

**TERMS OF REFERENCE**

for provision of consulting services:

**IT Architect**

(Individual consultant)

Contract reference No.: MF-IC-11

**1. BACKGROUND INFORMATION**

The Government of Ukraine has received financial assistance from the International Bank for Reconstruction and Development (“the World Bank”), acting as administrator of the grant provided by the European Commission on behalf of the European Union (“Donor”) under the EC-World Bank Partnership Program for Europe and Central Asia Programmatic Single-Donor Trust Fund (EU Programme for the Reform of Public Administration and Finances (EUroPAF) three million thirty thousand six hundred sixty-one Euros (EUR 3,030,661) (“Grant”) to implement the Strengthening Public Resource Management Project (“Project”). This Project consists of two parts: Part A “Strengthening Human Resource Management in Public Administration Institutions”; and Part B “Support to PFM Strategy Implementation”.

Part B of the Project, total amount of which is one million one hundred ten thousand six hundred eighteen Euros (EUR 1,110,618), supports the activities aimed at implementing the PFM Strategy for 2017-2020 and identifies future investments in ICT for PFM through carrying out the audit of ICT; modernization of existing ICT equipment for business continuity at the Ministry of Finance of Ukraine (“MoF”); and strengthening ICT system capabilities, etc.

To achieve the objective, one of the main tasks of the PFM Strategy is wide application of information technologies and automation of the existing processes with the purpose of minimization of human impact and related corruption challenges. To ensure coordinated development of IT systems in the field of public finance management and achievement of maximum synergy effect, Ministry of Finance is planning to develop the framework IT Strategy, which would define the priority fields of development and timing of their implementation.

MoF is responsible for implementation of Part B of the Project and, to strengthen its capacity with regard to Project implementation, involves through competition an individual consultant on development of optimal architectural solutions – IT Architect (“Consultant”) to provide support in preparation of the framework Strategy for Development of IT Systems in the Field of Public Finance, namely with regard to building up a centralized IT architecture and definition of optimal technological solutions for efficient implementation of the IT centralization process.

**2. PROBLEM DESCRIPTION**

Currently in Ukraine all state bodies must ensure maximum automation of their life processes, prompt interaction and information exchange in the course of managerial decision making. Digitalization of most services, ensuring safe and full-scale remote and mobile work of officers

requires revision of approaches to build-up of the IT landscape and information systems architecture.

At the same time, increased and wide usage of digital and related technologies gives rise to the challenge of securing stable and reliable work, increase of qualification requirements to IT staff, and ensuring proper support of automated processes.

Currently in Ukraine, the IT architecture of MoF, the State Customs Service of Ukraine, the State Tax Service of Ukraine, and the State Treasury Service of Ukraine requires material upgrade for enabling PFM implementation, usage of state-of-the-art global experience in PFM automation and digitalization, increase of efficiency of public administration, ensuring access to necessary information and increase of promptness of decision making.

The main architectural problems are absence of online integration between PFM systems, absence of a common up-to-date data storage space accessible for all agencies, outdated nature of certain platforms, absence of automated information exchange with a number of other state institutions, and a large volume of paper documents used. In particular, the following defects can be noted:

- Absence of online integration between key PFM systems, namely: between the systems of MoF and the State Treasury Service of Ukraine (Derzhbudzhet, Local Budgets, E-Treasury, State Debt Management, E-Zvit, SPPR), thus leading to a large volume of manual operations, insufficient speed of information receipt, and the need for holding periodical reconciliations using paper documents. In particular, this refers to submission by MoF of the budget schedule and amendments to it to the State Treasury, transfer from the State Treasury of reporting on budgets fulfillment; absence of automated transfer to the State Treasury of orders for making payments on repayment/servicing of debt liabilities, receipt from the Treasury and processing bank statements.
- Absence of integration of State Treasury and MoF systems for transfer of projections prepared and prompt management from the MoF side over temporarily free funds at the Single Treasury Account, absence of automation of processes for placement of free funds using optimal conditions and tools, transfer of orders to the Treasury for accounts settlement.
- Lack of promptness of information coming to MoF and the State Treasury Service from the State Tax Service of Ukraine and the State Customs Service of Ukraine, including insufficient timeliness and quality of information on planned revenues from the State Tax Service of Ukraine and the State Customs Service of Ukraine, which is currently provided on paper.

MoF has insufficient level of influence and control in the field of IT systems and projects of subordinate agencies. Due to this, projects implemented in various subordinate agencies, are isolated and not always incorporate already available solutions used by other agencies. This may lead to doubling of functionalities and solutions used and of the relevant information flows.

Under the Concept on IT Centralization in the Field of Public Finance Management, approved with Resolution of the Cabinet of Ministers of Ukraine dated July 10, 2019 No. 594-r, IT resources of the public finance management system are being centralized. Such a model requires implementation of industry cloud-based technologies in the field of public finance management and usage of IT resources according to the "infrastructure as service", "platform as service", and "software as service" principles.

### **3. OBJECTIVES OF THE ASSIGNMENT**

The purpose of the works performance of this assignment to provide support to MoF in building up a general IT architecture of MoF, the State Tax Service of Ukraine, the State Customs Service of Ukraine, and the State Treasury Service of Ukraine, which is to become the basis for the Strategy of IT Systems Development in the Field of Public Finance Management and to ensure coordination of IT projects/initiatives with the PFM Strategy, including feasibility analysis and preparation of proposals on creation of the Single Inter-Sectoral Data Storage of MoF, the State Treasury Service of Ukraine, the State Tax Service of Ukraine, and the State Customs Service of Ukraine.

The objectives of this assignment are expected to be achieved through:

- development of recommendations to the draft Strategy of IT Systems Development in the Field of Public Finance Management in terms of building up and operation of a centralized architecture and implementation of cloud-based technologies in the PFM system;
- analysis and formation of the list of cloud services, working out the implementation plan and efficiency indicators;
- development of the plan of creation of a Shared Service Center with a common data storage space for MoF, the State Tax Service of Ukraine, the State Customs Service of Ukraine, and the State Treasury Service of Ukraine.

#### **4. SCOPE OF SERVICES AND TASKS**

The Consultant shall perform the following tasks according to the stages below:

*On the analysis and activity planning stage, the Consultant shall:*

4.1. Analyze (including through studying the report on the audit held by Deloitte in the years 2018-2019) the current IT systems of MoF, the State Tax Service of Ukraine, the State Customs Service of Ukraine, and the State Treasury Service of Ukraine, including:

- holding pre-project inspection of the MoF ITS systems, including the operating virtualization systems;
- holding pre-project inspection of the State Customs Service of Ukraine ITS systems, including the operating virtualization systems;
- holding pre-project inspection of the State Tax Service of Ukraine ITS systems, including the operating virtualization systems;

4.2. Analyze contemporary analytical researches, strategies, and plans in the field of cloud-based technologies usage in Ukraine, including in the field of government bodies (such as, for example, the draft law of Ukraine "On cloud services" - [http://w1.c1.rada.gov.ua/pls/zweb2/webproc4\\_1?pf3511=67744](http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=67744) ).

4.3. Collect the relevant documents and complete a data on data storage technologies used in the State Tax Service of Ukraine, the State Customs Service of Ukraine, and MoF.

4.4. Evaluate the scope of works on shift to usage of the cloud-based technologies model and building up the overall cloud (territorially distributed data processing center) in PMF.

4.5. Provide brief description of the main goals, alternatives, and parameters related to decision making, and work out criteria on decision making for ensuring quality of proposed solutions;

4.6. Study possible problematic issues on implementation of a centralized architecture, implementation of cloud-based technologies in the work of PFM;

4.7. Prepare and submit recommendations and action plan on preparation of proposals on implementation of a centralized architecture of common solutions in frames of PFM implementation, and (if required) incorporation of amendments, recommendations, and detailed action plan (including the structure of works with regard to interaction with consultants on information security and business analysts, deliverables, required resources, and time schedule of works, worked out with account of available resources) into them.

4.8. Prepare and submit the Report on Pre-Project Study of the MoF ITS operation environment and incorporate amendments to it, if required.

*At the stage of implementation of the results of analysis and proposal development on implementation of a centralized common solutions architecture in frames of PFM implementation*

4.9. Coordinate implementation of the action plan and interact on constant basis with consultants on information safety and business analysts, including:

- provision of consulting services on working out functional requirements to implementation of cloud technologies;

- render consulting services on working out the list of cloud-based services.

4.10. Ensure coordinated policy in the field of hardware and software solutions, those in the field of communication, information security, policy in the field of development of the necessary software and technologies etc, which would correspond to the defined architecture of the MoF systems;

4.11. Within the process of MoF systems implementation, ensure the preparation of proposals for a stack of technical solutions on integration of MoF systems with other information systems of the State Customs Service of Ukraine, the State Tax Service of Ukraine, and of the State Treasury Service of Ukraine, which would be optimal in terms of the defined architecture.

4.12. Analyze and work out proposals on definition of the architecture, hardware and software as well as technologies for integration of the separate components of the MoF information system into a single whole with the purpose of ensuring adaptation of the IT infrastructure to MoF business needs;

4.13. Develop a draft target architecture for ITS monitoring and control of the Ministry of Finance, the State Customs Service of Ukraine, the State Tax Service of Ukraine, in which to take into account the direction of information security in the private cloud SUDF, including database control (for example, using the Imperva solution, which has already been acquired by the Ministry of Finance of Ukraine and the process of its implementation has begun), control of endpoints, control of administrator actions, etc.

4.14. Obtain approval for the developed proposals on definition of the architecture, hardware and software as well as technologies for integration of the separate components of the MoF information system from the IT coordinator and the Department for Digital Development, Digital Transformation, and Digitalization;

4.15. Prepare and submit the report on preparation of the technical project of the target architecture and incorporate amendments to it, if required.

*At the stage of documents revision based on the results of the defined information system structure:*

4.16. Conduct expert appraisal and prepare conclusions on compliance of the selected MoF systems' architecture with draft terms of reference and technical specifications for computer hardware, software, server equipment, network and telecommunications equipment, engineering infrastructure, structured cable networks etc., which are planned for procurement in frames of implementation of other MoF projects.

4.17. Develop a draft of the concept of implementation of the industry cloud-based technologies into PFM, which would become part of the Strategy of IT Systems Development in the Field of Public Finance Management.

4.18. Prepare proposals on implementation of centralized management and administration of the IT infrastructure and automated monitoring of all components.

4.19. The Consultant shall document his/her types and results of works, lessons learned, and proposals on the works aimed at improvement, which it would be possible to carry out following completion of the assignment.

## 5. DELIVERABLES AND TIMING FOR THEIR PROVISION

The Consultant shall prepare the following results<sup>1</sup>:

No.	Result	Deadline for submission (from the date of contract signing)
1	Initial pre-project survey report, including: - clarification of the scope of the survey; - agreement on the methodology for developing survey results. Draft monitoring methodology developed, which would define processes most critical in terms of risks	Within 10 working days
2	Report on conduction of pre-project inspection of the MoF ITS operational environment, including: 1) Topology of the virtual environment; 2) Description of the virtual network; 3) Description of disk pools; 4) Description of computing resources; 5) Description of clusters, management and monitoring systems. 6) Justified recommendations on usage of mechanisms and architectural solutions of the	Within 30 working days

<sup>1</sup> The mix of deliverables and the timing of fulfillment of the assignment may be precised during the contractual negotiations with the Consultant, as per the proposed methodology of services rendering.



	general cloud for inclusion into the draft Strategy for Development of IT Systems in the Field of Public Finance Management	
3	<p>Report on preparation of the technical project of the common solutions architecture and development of the functional requirements to implementation of MoF ITS cloud-based technologies, including:</p> <p>3.1. Architecture of systems of the Ministry of Finance of Ukraine. Functional requirements for the introduction of cloud technologies (public cloud of public financial management system) document. In the process of developing a technical architecture, explore the possibility of using existing solutions used by the main managers of budget funds to submit reports in electronic form, to form a list of cloud services as a representation of electronic services.</p> <p>3.2. "Concept of implementation of industry cloud-based technologies in the public finance management system" document, which will technically and technologically add the section described in the "Strategy for the implementation of digital development, digital transformation and digitalization of the State financial management system until 2024".</p> <p>Draft plan prepared of creation of an IT Shared Service Center with a common data storage for Ministry of Finance, the State Tax Service of Ukraine, the State Customs Service of Ukraine, and the State Treasury Service of Ukraine.</p>	Within 90 working days

**6. COORDINATION, ACCOUNTABILITY AND REPORTING**

The Consultant shall work under the supervision of the Project Coordinator from the MoF and shall be accountable/report to him/her.

The Consultant shall coordinate his/her work with the MoF’s IT Coordinator in terms of development of coordinated solutions for working through and building up a conceptual model serving as basis for the Strategy of Development of Information Technologies of MoF for the Years 2020-2022, and provide to MoF representatives output information on fulfillment of the assignment.

In the course of operational interaction, the Consultant shall cooperate with:

- Relevant subdivision of MoF authorized to administer the MoF IT systems (including virtual systems);
- Lead Information CyberSecurity Consultant (individual consultant);

The Consultant shall prepare and submit to the MoF the following reports:

- Initial pre-project survey report;
  - Report on conduction of pre-project inspection of the MoF ITS operational environment;
  - Report on preparation of the technical project of the common solutions architecture and development of the functional requirements to implementation of MoF ITS cloud-based technologies;
1. The Consultant shall submit the Initial pre-project survey report not later than the deadline established for Result No. 1 in Section 5 of the present Terms of Reference. The report is prepared based on the results of tasks fulfillment and shall contain the following information:
    - information on the first stage of the works performance as per the list of documents provided in para 1 of Section 5 of the present Terms of Reference;
    - problematic issues which the Consultant considers to be obstacles for timely and quality services rendering and proposed measures on elimination of such issues;
    - other information upon the Consultant's discretion.

The documentation prepared by the Consultant, as specified for Result No. 1 in Section 5 of the present Terms of Reference, shall be attached to the Report.

2. The Consultant shall submit the Report on conduction of pre-project inspection of the MoF ITS operational environment not later than the deadline established for Result No. 2 in Section 5 of the present Terms of Reference. The report is prepared based on the results of tasks fulfillment and shall contain the following information:
  - information on the second stage of the works performance as per the list of documents provided in para 2 of Section 5 of the present Terms of Reference;
  - problematic issues which the Consultant considers to be obstacles for timely and quality services rendering and proposed measures on elimination of such issues;
  - general information on readiness of the whole set of documents specified in para 2 of Section 5 of the present Terms of Reference;
  - other information upon the Consultant's discretion.

The documentation prepared by the Consultant, as specified for Result No. 2 in Section 5 of the present Terms of Reference, shall be attached to the Report.

3. The Consultant shall submit the Report on preparation of the technical project of target architecture (single inter-sectoral data storage of MoF, the State Treasury, the State Tax Service of Ukraine and the State Customs Service of Ukraine), including with usage of cloud-based technologies not later than the deadline established for results No. 3 in Section 5 of the present Terms of Reference. The report is prepared based on the results of tasks fulfillment and shall contain the following information:
  - general information on stage 3 of the works performance;
  - the top-level architecture (a unified interindustry data warehouse and an integration bus, thanks to which all information systems that are currently used in the PFM or are planned to be created must have information exchange interfaces (API) should address issues like interoperability, data lake/BigData for centralization of data sets, incorporating existing BI systems, streaming APIs, and data analytics and reporting tools, including potential use of Artificial Intelligence in future;

- working out functional requirements to implementation of MoF ITS cloud-based solutions as per the list of documents specified in para 3 of Section 5 of the present Terms of Reference;
- list of possible cloud-based services as per the list of documents specified in para 3 of Section 5 of the present Terms of Reference;
- The cloud strategy and requirements should include addressing requirements for data protection and privacy, data sovereignty (Ukraine laws should be applicable over data ownership), auditability (audit logs), two-factor authentication for access, incident response mechanism, escrow arrangements for key management, performance monitoring mechanisms, security authorization requirements according to data categorization (confidential, public, non-public, sensitive, etc), compliance with Ukrainian legislation and policy on various areas, compliance with international standards on reference cloud architectures, breach response, record and archive management, including destruction of records where applicable, inter-operability across clouds and on-prem data centers.
- conceptual approach to implementation of industry cloud-based services as per the list of documents specified in para 3.2 of Section 5 of the present Terms of Reference  
(This should include international experience from 2-3 countries, draft regulations for a unified IT service center (Shared Service Center), including a draft of the functional responsibilities of the project steering committee and Governance arrangements for central coordination on issues, including program and project prioritization, monitoring, investments, SLAs, use of common technologies ministry-wise (document management system, security, etc));
- These requirements should be at a level of detail that would help the MoF to purchase equipment to implement the public financial management system's concept of a public financial management system at the Ministry of Finance data center level and purchase the services of commercial cloud service providers who are able to certify their comprehensive information security system compliance issued by the State Service information protection and communication.
- problematic issues which the Consultant considers to be obstacles for timely and quality services rendering and proposed measures on elimination of such issues;
- general information on readiness of the whole set of documents specified in para 3 of Section 5 of the present Terms of Reference;
- other information upon the Consultant's discretion.

The documentation prepared by the Consultant, as specified in para 3 of Section 5 of the present Terms of Reference, shall be attached to the Report.

#### 4. Requirements to the reports

All reports are compiled in Ukrainian language. Any appendices to them shall be in the original language.

All reporting documents shall be submitted by the Consultant in the following manner:

- The Consultant shall submit the reporting documents in electronic form via email: \_\_\_\_\_ for review and comments by the MoF (reports shall be signed by the

Consultant, scanned in pdf format and sent from Consultant`s e-mail indicated in para. 5 below). Supporting documents shall be in the MS Word, MS Excel or MS PowerPoint format or any other form previously agreed with or acceptable to the MoF, depending on the type of a document.

- If the MoF agreed reporting documents submitted via email, the Consultant shall submit them in paper form in 2 hard copies signed by the Consultant. The Paper version shall be submitted on the following address: Kyiv, 04071, Mezhegirska str., build. 11, Attn to Mr. Igor Shevliakov.

If the Consultant's report refers to information or documents prepared earlier, such documents shall be attached to such a report.

#### 5. Review and approval of the Reports

The MoF reviews the submitted reporting and approves or submits comments within 10 working days from the date of receiving the report about the results of work. The comments on the reports are set out in writing and sent to the Consultant via email: \_\_\_\_\_ with the notification of delivery of the message. The consultant confirms the receipt of the comments and sets the deadline for their consideration within a day after receiving the MoF's comments. The Consultant shall take into account the MoF's comments and re-submit updated report(s) MoF no later than within 5 working days from the date of their receipt to the e-mail, specified by the Consultant

In the absence of the MoF's comments within the specified period, such reports are considered accepted.

### 7. CLIENT INPUTS

The MoF provides the Consultant with:

- i) all the relevant documents and data not marked as restricted access or not belonging to confidential information;
- ii) access to the MoF premises;
- iii) If a consultant to communicate with other institutions apart of MoF, the MoF is to ensure the connection a Consultant with contact persons of relevant institutions.

### 8. RESTRICTIONS

The Contract with the Consultant contains a standard Conflict of Interest clause. Apart from that, all materials created during performance of the services under the Contract, shall remain the property of MoF and may be used only upon the official written consent of MoF.

Prior to commencement of the services, the Consultant jointly with MoF shall prepare a confidentiality statement, where he/she shall undertake not to disclose the confidential information he/she can receive in the course of fulfillment of the assignment. The provisions of the confidentiality statement shall comply with the requirements of the current legislation of Ukraine.

### 9. PLACE, DURATION, WORKING CONDITIONS AND REMUNERATION

The Consultant is expected to work throughout the period from November 2020 to March 2021. The expected working time spent generally shall not exceed 90 working days. The assignment envisages the Consultant's work at his/her place of residence.

The amount of the remuneration will be determined through negotiations with the selected person and payment for the services provided will be made against reports accepted.

The Consultant shall be responsible for all expenses he/she incurs in relation to rendering the services and not provided by the MoF as indicated in Section 7 of the present Terms of Reference.

The selection of consultant will be done in accordance with the Bank's "[Procurement](#) Regulations for IPF Borrowers", July 1, 2016 with revisions as of November 2017 and August 2018 ("Procurement Regulations").

## **10. QUALIFICATION REQUIREMENTS**

*The Consultant shall meet the following qualification requirements:*

### **Mandatory qualification for the Consultant:**

- higher technical education (Master's or Specialist's Degree in "information technologies", "automated management systems", "telecommunications", "communications" or similar);
- at least 10 years of overall industry experience, including experience of doing similar work at an organization comparable in scale and complexity should be emphasized;
- experience in performing similar assignments in terms of scope and complexity in at least one project for a government agency;
- experience in implementation of virtualization systems of the "Enterprise" level;
- experience in the development of architecture of cloud solutions;
- fluent speaking and writing in Ukrainian;
- knowledge of English on upper-intermediate level;

### **Additional qualification requirements corresponding to the peculiarities of the assignment, meeting them would be an advantage**

*Meeting the following qualification requirements by the Consultant would be considered by the MoF as an advantage:*

- availability of VMware Professional Certification (VCP-DCV, VCP-DTM, VCP-NV);
- availability of MCSE: Private Cloud certificate;
- availability of the IBM System/Power Systems PowerVM Implementing certificate;
- experience of work with applications containerizing and industrial orchestration of containers;
- experience of work with following systems: VMware vRealise, VMware Horizon, VMware vCloud, VMware vRealize Orchestrator, IBM PowerVM Virtualization;
- experience in building up solutions based on the cloud computation architecture;
- knowledge of the main Microsoft server services, network services (DNS, DHCP, VLAN, VPN);

- experience in administering server operation systems (for instance, MS Server, Solaris, AIX etc.), or virtualization platforms (for instance, VMware, Hyper-V etc.), or database management systems (for instance, MSSQL, Oracle etc.);
- experience of work with Cisco or similar network equipment.

The candidates shall provide confirmation in the form of references to publicly confirmed and accessible information, or provide copies of relevant documents confirming the respective status or condition.