

Modernization of Government Services Project

Project ID No. P148537

Terms of Reference

Consulting Services for software development of the e-Governance solutions

I. Background

The Government of Moldova is determined to fundamentally change the way how public services are provided in Moldova through a variety of interventions for modernization of service delivery, which combat corruption, foster a customer care culture, enhance access, as well as increases efficiency in the Moldovan public administration.

From 2006 to 2013, Moldova modernized its civil service legislation and administrative processes under the Central Public Administration Reform (CPAR), supported by the World Bank's administered CPAR Multi-Donor Trust Fund.

In July 2016, the Government of Moldova approved the Public Administration Reform Strategy for 2016-2020, that kept the modernization of public services delivery process among its main objectives.

To achieve the stated objectives, the Government requested the World Bank's assistance for a PAR operation, that became effective in June 2018, called Modernization of Government Services Project (hereafter MGSP or the Project).

The design of the project takes into account the Government of Moldova's vision, stated in the Public Administration Reform Strategy 2016-2020 and makes extensive use of institutional and technological achievements of Governance e-Transformation Project (GeT) implemented by the Government of Moldova and World Bank in the period between November 2011- December 2016.

In 2021, the new Executive issued its governing Program "Establishing Good Times for Moldova" and set modernization of at least 100 administrative services and access of 100% of active population to electronic public services as some of its objectives. The Government Action Plan 2021 – 2022 through its envisaged actions reconfirms the determination of the Government to modernize the administrative service delivery system by improving access to public services through various channels, their efficiency, reduction of unnecessary administrative burdens and cost of services for both beneficiaries and service providers, ensuring a stable level of quality of administrative services.

MGSP continues to play a very important role in achieving the high-level objectives set up by the Government. The project aims to improve access, efficiency and quality of delivery of selected administrative services through the following components:

1. Administrative Service Modernization

The key activities under this component focus on re-engineering a group of government to citizen and government to business administrative services; piloting of one-stop-shops for public service

delivery in selected locations and rolling out at national level; increasing public awareness on and advocacy for administrative services, with a particular highlight on e-services.

2. Digital Platform and Services

The main objective of this component is to digitize selected re-engineered government services; complete and strengthen a common infrastructure and mechanisms for rapid deployment of ICT-enabled public services; introduce government wide IT Management and Cyber Security standards and procedures. The component finances the procurement of additional shared computing infrastructure elements, digitization of services needed to deliver Government services electronically, as well as the development of a learning management system to mainstream the new digital infrastructure and the modernized services within the government.

3. Service Delivery Model Implementation

The objective of this component is to ensure that the institutional capabilities of key government agencies are aligned with and support the new model of public services delivery.

4. Project Management

This component supports the Project Implementation Unit (PIU), based in the e-Governance Agency (eGA) and ensures the activity the core e-Governance Agency team.

Assignment Context:

Although the Government has launched the reform of public services in 2014-2016 and has committed to digitize and provide online access to all public services by 2020, lack of capacity and expertise to perform reengineering and process optimization remains a problem that prevents achieving this.

Also, there is room for rationalization to over 580 existing public service by withdrawing from use the obsolete services.

To meet these challenges, the Government, in accordance with the Public Administration Reform Strategy for the years 2016-2020 (especially the component “Modernization of Public Services”) plans a major transformation exercise (qualitative and quantitative) of administrative public services, provided by central public administration authorities through: a) removing outdated public services or merging several services in one; b) increased access to local public services through various channels; c) reducing the number of documents required for public services, and the service delivery time; e) ensuring a high level of satisfaction with the quality of government service delivery.

The software development component of the electronic services, being a corner stone of the whole public service digitization process, requires the applicability of an integrated approach throughout the service digitization process and the subsequent exploitation and continuous improvement.

The software development aspects are considered to be an important part of the Public Service Digitization Process.

The lack of software development capacity in the Government Authorities makes these projects highly risky and prone to poor implementation outcomes.

Therefore, the e-Governance Agency, given the need for update/adjustment/modification of existing solutions by developing new functionalities, as well as the development of new IT solutions, needs additional resources in order to ensure the continuity of digitization of government services in the Republic of Moldova.

Moldova e-Governance Agency is looking for a consultant company to provide necessary resources (pool of experts) to ensure the software development capacity during the whole software solution development life cycle. The Consultant is required to be actively engaged with the required resources in various Governmental projects.

The activities regarding the upgrade and software development of new functionalities of at least 10 software solutions¹, will require consultant's assistance for the following platforms:

- MCloud – private government cloud computing platform
- MConnect/MAccess – data exchange platform
- MPass – government electronic identity service
- MSign – government digital signature service
- MPay – government payment service
- MNotify – government notification service
- MPower – government authorization service
- MLog – government journaling service
- MDelivery – government delivery service
- Public Service Portal – government portal for public services for citizens and business.

II. Objectives

The eGA seeks through this TOR to engage a team of experts through a firm in accordance with the policies of the World Bank detailed in the [Consultants' Guidelines](#).

The services aim at providing high quality professional services in the area of IT development. The primary objective of this assignment is to ensure the necessary capacity to perform activities related to software development, support the automation of deployment and IT operations of the information systems implemented and managed by e-Governance Agency.

III. Scope of the Services and Expected Deliverables

The Scope of the Consulting services includes but is not limited to software developing, automation of deployment of information systems as fully functional products with all functionalities in place and/or new functionalities for the information systems managed by e-Governance Agency. The list of expected deliverables are indicated below:

- Compilable and documented source code (including third-party tools and libraries, where applicable and automation scripts);
- Automation tools implemented in an efficient manner and reported;
- Technical and End-user documentation developed or updated;
- Training sessions performed and technical materials related to platform-level services developed upon request;
- Technical sessions performed upon request;
- Technical evaluation notes and reports;

¹ As per the Results Framework and Monitoring end target defined under Component 2 of MGSP.

- General operational requirements for product development;
- Contributions to the development of digitization methodology, especially to non-functional requirements.

IV. Timing and Effort

The assignment is expected to commence in December 2022 and the duration of the services will be for a period of twelve (12) months.

The table below contains a preliminary estimation of the effort required for the team of experts specified in these Terms of References.

Table 1. Expertise and Staff Inputs

#	Expert competence	Qty	Input, <i>Person-working days</i>
K-1.	Senior Software Developer	2	500
K-2.	Software Developer	5	1250
K-3.	DevOps Engineer	1	250
TOTAL		8	2000

Considering the Agile development methodology, if necessary, the Client can reallocate the workload among the experts involved in the development projects, so that the effort that was not used by some experts can be distributed to others. Also, the consultant shall consider additional non-key experts needed to undertake the proposed assignment in terms of junior experts.

V. Institutional Arrangements

The Client is responsible for all administrative and procedural aspects, contract and financial management, including acceptance and payment of deliverables/reports expected under the Contract, general project responsibilities and efficient coordination with stakeholders.

The Consultant will work under the direct supervision of the Chief Digital Officer and will cooperate with e-Governance Agency specialists.

The Client will provide the following:

- infrastructure resources for testing and production environments;
- code repository, issue tracking system, CI/CD environment, task management system via the Client's subscription in Azure DevOps;
- adequate working conditions (workspace/office premises for experts, communication facilities) and services are provided to the Consultant's staff during the lifetime of the project;
- training facilities.

VI. Company Qualification requirements

The Consultant shall furnish documentary evidence (including information about the completed contracts and contact information of clients from whom the references could be taken or whom the

Client may, when necessary, visit to familiarize themselves with the systems put into operation by the Consultant) to demonstrate that it meets the following experience requirements:

1. Have been in operation for at least five (5) years with main part of its business being the development of information systems.
2. Experience in conducting projects developing web applications using .NET technologies proven by at least two (2) contracts with the development phase finalized in the last three (3) years. For ongoing projects, copies of acceptance documents of the entire software solution shall be provided.
3. Experience in software development using agile software development principles *would be an asset*. This shall be demonstrated by presenting the project methodology describing the role of the client.
4. Experience in working with governmental organizations *would be an asset*;
5. Certification obtained related to quality management (ISO 9001) *would be an asset*.

VII. Team Composition & Qualification/ Experience Requirements for the Experts and their Responsibilities

The consultants will assist eGA staff in the upgrade/development of the IT solutions. The team proposed by the consultant shall be composed of skilled and experienced specialists, who will carry out the assigned tasks.

A. Team Composition. The total estimated effort for the defined tasks is two thousand (2000) person-working days. Details on expertise and effort requirements are shown in Table 1. The team should be, at a minimum, composed of the following key experts that meet the minimum qualifications requirements.

B. Qualification/Experience Requirements for the Experts.

Senior Software Developer (K-1)

- University degree in Computer Science or another relevant domain;
- At least 7 years' experience in software development;
- At least 5 years proven experience in team/project management using agile development approach, with at least 2 projects implemented in the last 3 years;
- Participation in at least 3 projects in software development using C#, Entity Framework, ASP.NET MVC, at least in one of them as a software architect and/or senior software developer;
- Experience with modern development technologies, including web technologies and development of thin-client applications;
- Experience in development of high availability and high-performance software, as well as use of high-availability application architecture;
- Experience in system integration, interoperability and containerization ;
- Ability to effectively communicate and write in English and Romanian languages. Communication in Russian is an advantage.

Software Developer (K-2)

- University degree in Computer Science or another relevant domain
- At least 5 years' experience in software development

- At least 3 years' experience in software development using C#, Entity Framework, ASP.NET MVC
- Proven experience in web UI design and development using responsive frameworks, progressive web apps
- Experience in at least 2 software development projects in the last 3 years using agile approach
- Experience with unit testing
- Experience in systems' integration, API design and development using SOAP/REST
- Certifications in any technology from the required technology stack is an asset
- Ability to communicate in English and Romanian. Communication in Russian is an advantage.

DevOps Engineer (K-3)

- University degree in areas such as computer sciences, engineering, telecommunications or related;
- Minimum 3 years of experience in IT area;
- Experience with DevOps and/or System/Network Administration;
- Experience working with source control systems, CI/CD, unit test and code coverage tools, containers and container orchestration (Kubernetes);
- Knowledge of logging, tracing, monitoring and alerting tools;
- Knowledge of network protocols and administration;
- Knowledge of database administration (MSSQL, PostgreSQL, Elasticsearch);
- Ability to effectively communicate and write in English and Romanian languages. Communication in Russian is an advantage.

Preferred requirements

- Experience with Azure DevOps or .NET technologies;
- Experience with automated security tools;
- Certifications in DevOps, virtualization and container technologies, network administration, Linux and Windows system administration.

C. Responsibilities of the Experts.

The main responsibilities of each expert are highlighted, but not limited to, as follows:

During the proposed period of performance, the **Senior Software Developer (K-1)** will perform the following activities:

- Lead developer teams;
- Execute tasks related to the digitization of the assigned information systems managed by e-Governance Agency;
- Ensure the functionality and maintenance of the testing and production environments of the digitized services;
- Maintain existing integrations as well as develop new integrations with third party information systems and platforms;
- Develop/maintain up-to-date technical documentation, including user guides for developed services;

- Participate in existing IT systems audits and validations of proposed technical specifications for new developments in public services digitization;
- Contribute to the development of digitization methodology, especially to non-functional requirements;
- Conduct researches and analysis in adopting new technologies, protocols or practices in existing and new products;
- Provide advice to EGA management on technology advancements, standards and technology governance;
- Other activities as requested related to meeting the EGA objectives.

The **Software Developer (K-2)** will perform the following activities related to this assignment:

- Execute tasks related to the digitization of the assigned information systems managed by e-Governance Agency;
- Ensure the functionality and maintenance of the testing and production environments of the digitized services;
- Maintain existing integrations as well as develop new integrations with third party information systems and platforms;
- Other activities as requested related to meeting the EGA objectives.

The **DevOps Engineer (K-3)** will perform the following activities related to this assignment:

- Implement automation tools and PaaS services;
- Maintain and optimize automation tools and PaaS services;
- Implement automated deployment, upgrade/downgrade, backup, log collection, monitoring, alerting and other reusable services;
- Monitor the industry for new tools or optimization of deployment for existing tools;
- Investigate alternatives for automation tools and PaaS Services;
- Provide technical consultancy on development projects on matters related to optimization of automated deployment and IT operations;
- Draft Terms of Reference, technical specifications, contributing to development of bidding documentation, participating in offer evaluations and reporting;
- Other activities as requested related to meeting the EGA objectives.

VIII. Activity Progress Reports and Payments

The reports will be submitted monthly detailing activities performed and progress achieved during the reported period.

The consultant's remuneration is based on agreed upon unit rates for consultant staff multiplied by the actual time spent by the staff in executing the assignment and reimbursable expenses using actual expenses and/or agreed upon unit prices.