

**Modernization of Government Services
in the Republic of Moldova
Project ID No. P148537**

**TERMS OF REFERENCE
NATIONAL CONSULTANT - DEVOPS ENGINEER**

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 Donor Trust Fund. In July 2016, the Government of Moldova has approved the Public Administration Reform Strategy for 2016-2020¹, that keeps the modernization of public services delivery process among its main objectives. This fact reconfirms Government's determination in the modernization of the administrative service delivery system by improving access to these 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.

To achieve the stated objectives, the Government has requested the World Bank's assistance for a PAR operation, that became effective in June 2018, called Modernization of Government Services Project (MGSP, 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. The project aims to achieve improvements in 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 explore the possibility of rolling out at national level; increased awareness of citizens on public services and availability of e-services.

2. Digital Platform and Services

The main objective of this component is to digitize select 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. It will finance the acquisition of additional shared computing infrastructure elements, digitization of services needed to deliver Government services electronically and development of IT Management and Cyber Security standards and procedures as well as learning management system to mainstream them 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.

¹ <http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=366209>

4. Project Management

This Component will support the Project Implementation Unit (PIU), based in the e-Governance Agency (eGA) and will ensure the activity the core e-Governance Agency team.

The MGSP project is designed to reuse centralized infrastructures and platforms developed by Government of Moldova within Governance e-Transformation Project and administered by Moldovan e-Governance Agency. Major reusable components of the e-government infrastructure are listed below:

- MCloud – private government cloud computing platform
- MConnect – 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
- Public Service Portal – government portal for public services for citizens and business.

In the context of public service reform, the Government is reviewing the existing infrastructures, platforms and centralized services (i.e. e-government infrastructure) in order to enhance them with new functionality as well as extend the infrastructure with brand new reusable components and services which will lead to better electronic public services. At least 10 upgrades to e-government infrastructure components are planned as part of MGSP.

In line with the above, the e-Governance Agency is adopting Agile and DevOps practices to streamline systems' development, collect feedback, improve systems' observability and automate operations for better service quality and response times in case of incidents.

The eGA already made significant progress in this area by containerizing several existing services and making new developments in cloud-native manner. The eGA cloud-native infrastructure currently includes automated CI/CD tools for deployment to Kubernetes using helm and several operators such as Prometheus/Grafana for real-time monitoring and alerting, cert-manager for automated certificate provisioning, EFK stack for log centralization, etc. The eGA plans to continuously improve and extend this stack.

II. Objectives

The e-Governance Agency seeks to recruit an experienced national consultant for the position of DevOps Engineer to support the eGA in provisioning and maintaining automated deployment, operational tools and implement reusable PaaS services that support e-government infrastructure, sectorial services, as well as the environments on which they operate.

III. Scope of Work

The DevOps Engineer will be part of the eGA core team and will primarily support the automation of deployment and IT operations of eGA operated governmental reusable services, such as MConnect, MPass, MSign, MPay and other services. The position includes tasks from the whole lifecycle, starting with investigating alternatives and proposing appropriate solutions, implementing their initial deployment, optimizing their maintenance, as well as automating the operational aspects of the tools, including logging, tracing, monitoring and alerting.

The final intent of the assignment is to support eGA in defining an efficient architecture for IT operations and reusable PaaS services. This approach has a broad impact on the whole lifecycle of products development.

Main activities and responsibilities of the DevOps Engineer:

- 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;
- Take part in procurement of goods and services by drafting Terms of Reference, technical specifications, contributing to development of bidding documentation, participating in offer evaluations and reporting;
- Other duties as assigned.

IV. Outputs

The outputs of the DevOps Engineer will include the following but will not be limited to:

1. Automation tools implemented in an efficient manner and reported;
2. Technical evaluation notes and reports;
3. General operational requirements for product development;
4. Quarterly Activity Reports.

V. Timing

This is a full-time assignment expected to commence in October 2020 with a *four-month* trial period. The initial contract will be signed for *12 (twelve)* months upon positive performance the contract can be extended subject to further positive evaluation of performance and the same fee rate.

VI. Institutional arrangements

The Consultant will work for eGA and will report to and work under the direct supervision of the Head of Automation and Integration Department of eGA and Enterprise Architect 1 (currently working for eGA).

The Consultant will undergo an internal evaluation of performance using an individual standard Performance Evaluation Form that will be completed and updated by the Consultant, discussed with and approved by eGA, every 12 months. The first evaluation will cover the trial period.

VII. Resources

The e-Governance Agency will provide working space, office equipment and communication facilities, as well as any other necessary means and support for Consultant in order to carry out this assignment.

VIII. Skills and Qualification requirements

Mandatory qualifications:

- University degree, including MA, in areas such as computer sciences, engineering, telecommunications or related;
- Minimum 5 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 qualifications:

- 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.