REQUEST FOR EXPRESSIONS OF INTEREST
(CONSULTING SERVICES – FIRMS SELECTION)

Republic of Armenia
Fourth Public Sector Modernization Project
Loan No.9338-AM

Assignment Title: Development of the Unified Call Center Module for the Operational Management System

Reference No. (as per Procurement Plan): PSMP4-CQS-1.3.6

The Republic of Armenia (RA) has received financing from the World Bank toward the cost of the Fourth Public Sector Modernization Project (PSMP4), and intends to apply part of the proceeds for consulting services described in the present Terms of Reference.

The overall objective of this consulting services ("the Services") is to enhance and upgrade the existing OMS currently operated by the Police, and to extend its use to the Rescue Service of Armenia, by incorporating the full range of modules and functionalities described below. The upgraded system shall operate as a unified Call Center Module under the national 112 emergency service

The assignment will also ensure continued functionality through a warranty period, during which the Consultant will be responsible for addressing any defects or system issues that may arise.

The primary objectives of this software development assignment are to:

- **Develop a single, unified software platform** for handling all 112 emergency calls for both Police and Rescue services.
- **Enhance dispatcher efficiency** and reduce response times through automation, integrated tools, and standardized procedures.
- **Improve inter-agency cooperation** by providing a common operational picture and seamless information exchange.
- **Increase situational awareness** for both dispatchers and field units through integrated GIS and real-time resource tracking.
- **Establish a scalable and robust foundation** for future expansion and the integration of additional services.

More details on the Services are provided in APPENDIX A "Terms of Reference (TOR)" attached to this REQUEST FOR EXPRESSION OF INTEREST.

Duration of the assignment: is about 3 (three) months.

The Office of the Prime Minister of the Republic of Armenia now invites eligible consulting firms ("Consultants") to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services.

QUALIFICATION REQUIREMENTS

The Consulting firm must have sufficient resources and capacity to carry out the Services. In particular, the Consulting firm must meet the following minimum requirements:

- At least 5 years of specialization in complex software development.
- At least 5 years of experience in developing large-scale, online e-government or public safety systems.
- Proven experience in supporting the digital transformation of government services, such as e-government or related sectors.
- Successful completion of at least two (2) assignments of a similar nature, size, and complexity in the past 5 years. Preference will be given to projects funded by international organizations (e.g., World Bank, UNDP, EU, or similar).
- At least two successfully implemented e-government systems.

Note: All presented experiences must be supported by documented evidence. This includes a list of relevant assignments specifying the project/assignment title, client, year, duration, the Consultant's role, scope of services, and funding source. At least two assignments must be of a comparable nature, size, and complexity.

The Consultant's core staff/experts will not be evaluated at this stage.

The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" November 2020 ("Procurement Regulations"), setting forth the World Bank's policy on conflict of interest.

Consultants may associate with other firms to enhance their qualifications, but should indicate clearly whether the association is in the form of a joint venture and/or a sub-consultancy. In the case of a joint venture, all the partners in the joint venture shall be jointly and severally liable for the entire contract, if selected.

A Consultant will be selected in accordance with the Consultants Qualifications-based selection method set out in the Procurement Regulations.

Further information can be obtained at the address below during office hours 09:00 to18:00.

Expressions of interest must be delivered in a written form to the address below (in person or by e-mail) by October 24, 2025 (18:00 local time).

Attn: Mr. Aharon Mkrtchyan
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Office of the Prime Minister of RA
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(1-st Floor, Room 115, 117)
Country: Republic of Armenia
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ANNEX A

Terms of Reference

Development of the Unified Call Center Module for the Operational Management System

1. Introduction and Background

The Republic of Armenia (RA) has received financing from the World Bank for the implementation of the Fourth Public Sector Modernization Project (PSMP4) and intends to spend part of the allocated funds for the consulting services described in the present Terms of Reference.

The Ministry of Internal Affairs is initiating an assignment to establish a unified emergency number, **112**, for the Republic of Armenia. This assignment aims to merge the dispatch operations of the Police and the Rescue Service to enhance inter-agency cooperation, accelerate response times, and improve resource efficiency in emergencies. This initiative does not currently include the integration of ambulance dispatch centers.

An assessment made revealed significant disparities in the operational procedures and technological capabilities of the existing emergency services. The police dispatch system (102) utilizes a two-tiered model and has an information system in development (Operational Management System - OMS), while the rescue service (101/911) uses a single-operator model with minimal technological support. Furthermore, the Rescue Service receives alerts through additional channels, including SMS messages from the public and automated notifications from private fire alarm systems, which must also be consolidated into the new unified platform.

A key challenge across all services is the high volume of non-emergency calls, with up to 60% of police calls and 90% of general emergency calls being for informational purposes rather than urgent assistance.

This ToR outlines the technical requirements for the Phase 1 software development assignment. The strategic approach is to **enhance and expand the existing police OMS** into a unified, multi-agency platform that serves as the technological backbone for the new 112 service.

1.1. Beneficiaries

- Ministry of Internal Affairs of the Republic of Armenia
- Police of the Republic of Armenia
- Rescue Service of the Republic of Armenia
- Citizens of the Republic of Armenia

2. Objective(s) of the Assignment

The overall objective of the assignment is to enhance and upgrade the existing OMS currently operated by the Police, and to extend its use to the Rescue Service of Armenia, by incorporating the full range of modules and functionalities described below. The upgraded system shall operate as a unified Call Center Module under the national 112 emergency service

The assignment will also ensure continued functionality through a warranty period, during which the Consultant will be responsible for addressing any defects or system issues that may arise.

The primary objectives of this software development assignment are to:

- **Develop a single, unified software platform** for handling all 112 emergency calls for both Police and Rescue services.
- **Enhance dispatcher efficiency** and reduce response times through automation, integrated tools, and standardized procedures.
- **Improve inter-agency cooperation** by providing a common operational picture and seamless information exchange.
- **Increase situational awareness** for both dispatchers and field units through integrated GIS and real-time resource tracking.
- **Establish a scalable and robust foundation** for future expansion and the integration of additional services.

3. Scope of Services

The scope of the assignment is.

- Analyze the existing situation and develop a final system requirements specification (SRS) document with a detailed technical and functional design.
- Design and develop the modules described in the ToR.
- Develop the mobile application that supports all functions described in the ToR, including the real-time GIS maps.

- Integrate the newly developed modules into the existing OMS, ensuring all necessary updates, adjustments, and enhancements are implemented within the OMS.
- Extend the existing GPS tracking module to Fire & Rescue service vehicles, by purchasing and integrating the necessary GPS trackers.
- Test the solution, including the user acceptance testing.
- Conduct training for 50 designated staff members of the Ministry of Internal Affairs.
- Handover the source codes and related rights to the Beneficiary.

As the scope of work foresees the enhancement of the existing OMS and the mobile application, the Ministry of Internal Affairs will provide the successful bidder with all relevant technical and system-related information no later than one week after the contract signing. This shall include system architecture, current technical specifications, database structures, source code, and configuration files of the relevant modules, access to development, testing, and production environments, as appropriate.

The Consultant will be responsible for ensuring that the OMS is fully operational in the designated dispatch centers and supported through the agreed warranty period.

It should be noted that the existing OMS is under an ongoing maintenance contract. The selected Consultant shall be required to work in close collaboration with the current maintenance provider. This cooperation, which will be facilitated by the Ministry of Internal Affairs, is mandatory to ensure the seamless integration of new modules, prevent technical conflicts, and facilitate a smooth transition for future maintenance of the enhanced OMS.

The services to be implemented under this assignment shall include, but will not be limited to, the following:

3.1. General Requirements for the OMS Platform

The primary goal is the complete digitization of the emergency response workflows for all involved agencies, specifically the Police and the Rescue Service of the Republic of

Armenia. The OMS must be designed and function in a way that enables the simultaneous performance of actions by multiple users (e.g., call-takers, dispatchers, supervisors) and ensures clear identification of the authors of all actions within.

The Consultant must develop the system based on a thorough study of all relevant legal acts and regulations that govern the procedures of the emergency services. The Client will provide all necessary legislation and regulations to the Consultant during the implementation of the services.

- **Data Protection:** The OMS must ensure the protection of all personal and sensitive data in strict accordance with the requirements of the Law of the Republic of Armenia “On protection of personal data” and other relevant legal acts.
- **Interoperability:** The OMS must be built for easy and effective interoperability with other existing and future government systems. This includes the development of standardized APIs for seamless data exchange. The implemented module shall be compliant with the Government Decree N 1093-N, dated 31.08.2015.
- **User Roles and Competencies:** The OMS must feature a comprehensive Role-Based Access Control (RBAC) module. The specific types of users and the details of their competencies and permissions shall be finalized in discussion with the Client during the assignment's inception phase.
- **Flexibility and Scalability:** The OMS architecture must be flexible to allow for modifications in case of future amendments to legislation or operational procedures. It must also be scalable to serve as a robust foundation for future expansion and the integration of additional services.
- **Training of Users:** The Consultant is responsible for developing and delivering a comprehensive training program for up to 50 designated personnel to ensure they can operate the OMS effectively. The primary goal is to facilitate a smooth transition, especially for the Rescue Service, which is new to this platform.

3.2. Multi-Agency Core OMS Enhancements for Incident Management and Integration (Core Platform Enhancements)

This module focuses on upgrading the existing OMS to serve as a core platform for multi-agency emergency response, integrating the operational workflows of both the Police and Fire & Rescue Service. The platform will provide key functionalities, including incident lifecycle tracking, support for multiple channels of receiving reports, role-based access, and integration with third-party alarm systems. Enhancements under this module aim to improve dispatcher efficiency, situational awareness, and inter-agency coordination, while enabling standardized reporting and performance monitoring.

Functional Requirements (including but not limited to):

- **Multi-Agency Support**: The system must be re-architected to natively support the distinct workflows, terminology, resources, and operational needs of the **Fire and Rescue Service** alongside the Police.
- **Role-Based Access Control (RBAC)**: Extend the user management module, allowing administrators to create and assign granular roles and permissions for all user types (e.g., call-taker, rescue dispatcher, police dispatcher, shift supervisor).
- **Dialed Number Display**: The call-handling interface must clearly display the number the citizen originally dialed (e.g., 112, 102, 101, 911).
- **Data Capture & Reporting**:
    - **Response Lifecycle Timestamping:** The system must automatically capture and log a precise timestamp for each key event in an incident's lifecycle. This capability must include, but is not limited to, the following:
        - **Core Timestamps (Applicable to all incidents):**
            - Call answered by call-taker
            - Information forwarded to a dispatcher
            - Unit dispatched by a dispatcher
            - Unit status changed to "On Scene"
            - Incident resolution/closure
        - **Granular Operational Timestamps:** The system must also support the configuration of more detailed, service-specific timestamps to

track critical operational stages. For example, for firefighting operations, this would include:

- Deployment to combat
- Fire isolation
- Fire extinguishing
- Return to station

- **Data Export & Lifecycle Report**: The system must provide a feature to export raw operational data. This export must include all captured timestamps and enable the generation of a **Response Lifecycle Report**. This report will be used to calculate the time elapsed between each stage (e.g., call handling time, dispatch time, unit travel time) and must be filterable by incident type and date range.

- **Multi-Channel Incident Intake:** The platform must be enhanced to accept incident reports from channels beyond traditional voice calls.
  - **SMS Integration:** The system must provide a module to receive emergency requests via SMS. An incoming SMS shall automatically create a preliminary incident card and present it to a dispatcher. The system must capture and log the source phone number and display the message content clearly in the user interface.
  - **Third-Party Alarm System Integration (API):**
    - **Standard API Development:** The Consultant shall design, develop, and document a secure, standardized, and scalable RESTful API to allow authorized third-party systems to automatically report emergencies. This is primarily for receiving automated alerts from certified fire and security alarm system providers (e.g., in hotels, industrial facilities, gas stations).
    - **Functionality:** The API must allow authenticated third-party systems to create a high-priority incident directly within the OMS.

- **Data Requirements:** The API endpoint must accept a structured data payload containing essential information, including but not limited to:
    - Precise location of the alarm (Address and GPS coordinates).
    - The floor and specific location of the activated sensor (e.g., "7th floor, smoke detector in hallway").
    - The primary entrance to the building for responders.
    - Incident Type (e.g., "Automated Fire Alarm", "Panic Button").
    - Timestamp of the event.
    - Premises/Business Name.
    - On-site contact person details.
    - Unique ID of the alerting system/sensor.
- **Security & Administration:** The OMS must include an administrative interface to manage access to this API, including issuing credentials and revoking access for registered third-party companies.
- **Associated Premises Data (Provided by Alarm Company as part of the service agreement):**
    - **Known Hazards:** Information on stored hazardous materials, high-voltage areas, or other risks.
    - **Internal Water Sources:** Locations of standpipes and confirmation of a working sprinkler system.
    - **Utility Shut-offs:** Location of main gas and electrical shut-offs.
    - **Access Information:** Details on key box (Knox Box) locations or special access codes.

- **Occupancy Information:** Building type and typical occupancy (e.g., "Hospital, 300 beds", "Warehouse, 15 staff daytime").

3.3. SOP Form Builder & Risk Assessment

A dynamic module will be developed for creating and managing incident-specific questionnaires to implement the standardized call-processing algorithms. The system must be capable of handling the complex, hierarchical classification structures and multi-step, conditional questioning workflows detailed in **Annex A**.

- **Form Builder Interface**: An administrative tool that allows authorized staff to create and link digital questionnaires to specific, hierarchically-structured incident types (e.g., FIRE > Fire in a vehicle > Fire in a land vehicle).
- **Conditional Logic**: The questioning sequence must be dynamic, where an answer to one question can trigger different follow-up questions or actions.
- **Diverse Field Types**: The form builder must support:
    - **Text Input** with pattern validation.
    - **Advanced Rich Text Editor** with formatting options.
    - **Number Input** supporting units of measure.
    - **Date/Time Picker**.
    - **Selection Controls** (Checkbox, Radio Group, Dropdown).
- **Dynamic Priority & Risk Assessment**: The selection controls must support assigning a **numeric weight** to each option. This allows the system to calculate a risk score and dynamically assign a priority level (e.g., C-Priority, A-Priority) based on the caller's answers, determining the urgency and scale of the response.
- **Cross-Agency Dispatch Triggers**: The logic must support triggering dispatch orders or notifications to other agencies based on specific answers (e.g., notifying police on suspicion of arson or an ambulance if casualties are reported).

3.4. Resource & Operations Management

This module focuses on the effective management and dispatch of agency resources.

- **Fire Department Resource Hierarchy**: The system must model the Fire & Rescue service's organizational structure, including **Stations**, **Units** within stations, and the **Crews** assigned to them, as well as complete information on special and auxiliary vehicles
- **Unit Capabilities:** The system must allow for defining and displaying specific unit parameters and abilities, making this information available to dispatchers during resource allocation. This must include:
    - **Unit Type and Abilities,** such as pumper, hazmat unit, or the presence of specialized crews (e.g., gas and smoke rescuers, water rescuers, divers).
- **GPS Tracking Integration**: Extend the existing GPS tracking system to Fire & Rescue service vehicles for future integration of their real-time location data into the platform.
- **Customizable GIS Map Layers**: The web and mobile application of OMS currently supports the GIS map layers functionality, which should be updated to support the creation, management, and display of multiple, customizable GIS map layers and points to provide critical context to dispatchers, those are:
    - **Water Sources**: Locations of all fire hydrants, standpipes, reservoirs, and other water access points.
    - **Known Hazards**: Sites with hazardous materials, high-voltage substations, or other significant risks to first responders.
    - **Critical Infrastructure**: Locations such as schools, hospitals, government buildings, and gas stations.
    - **Building Pre-Plans**: Key information for high-risk buildings, including primary access points, utility shut-off locations, and floor plans.
- **Automatic Caller Location**: The system must be integrated to automatically receive and display a caller's geographic location on the dispatch map upon receiving a 112 call, with an ability to adjust the location indicator. The Ministry of Internal Affairs will ensure the location coordinates are provided by the telecoms.

- **Primary Unit Identification:** After an incident location is entered on the map, the system must automatically identify the designated primary response unit (Fire, Rescue Squad, Police, Ambulance) for that specific geofenced service area. The system shall display the unit's name and the real-time status of its crews directly on the dispatcher's map interface.
- **Contingency and Backup Dispatch:** If the primary response unit's crews are already assigned to another incident (i.e., status is "busy" or "unavailable"), the system must automatically prompt the dispatcher with the next designated replacement unit. This recommendation shall be based on a pre-approved and **configurable** reinforcement schedule. **The specific dispatch logic, reinforcement schedules, resource deployment plans for each incident and location type will be defined by the Ministry of Internal Affairs in the relevant SOPs and managed within the system by an authorized administrator.**

3.5. Mobile GIS Application (Field Unit App)

The Consultant will enhance the existing mobile GIS application currently in operational use by the Patrol Police and part of the OMS system. The primary objective is to adapt this proven platform to meet the operational needs of the Rescue Service. Due to a limited development timeline, the focus is on enabling core functionality for immediate use and implementing high-priority, service-specific enhancements. The features are prioritized as follows:

1. **Real-Time Unit Location**: Display the live location of other units assigned to the same incident on the mobile map.
2. **Status Updates**: Provide a simple interface for field units to send predefined status updates (e.g., "On Scene," "Returning to Station") back to the central dispatch system.
3. **Route Navigation**: Display the system-calculated optimal route to the incident location.

4. System Operation Risks

Operational Disparity and Onboarding Challenge: The Police service is already accustomed to the core Operational Management System (OMS), while this platform and its associated digital workflows will be new to the Rescue Service. This disparity poses a risk that Rescue Service personnel may face a steep learning curve, potentially leading to initial inefficiencies during the transition period.	The Consultant must develop a comprehensive training program specifically designed for all Rescue Service personnel. This program must be practical, hands-on, and supplemented with clear user manuals tailored to Rescue Service roles and workflows. A phased rollout or extended test period for the Rescue Service is crucial to gather feedback and ensure a smooth adoption.
Resistance to Unified Procedures: Merging the distinct operational cultures of the Police and Rescue services into a single set of Standard Operating Procedures (SOPs) may face institutional resistance, undermining the goal of unified dispatch.	The OMS must be technically flexible. The SOP Form Builder must allow authorized Client administrators to easily create, edit, and manage all workflows without needing the developer. This allows the Client to adapt procedures based on practical feedback and evolving needs.
Technical Instability of Enhanced OMS: Extending the existing OMS with complex multi-agency features and high-load requirements could introduce bugs or performance bottlenecks that compromise the stability of this critical system.	The Consultant must perform rigorous testing, including regression testing to ensure old functionality is not broken and stress testing to prove the system can handle the peak crisis load of **2,000 incidents per hour**. A formal testing phase with the Client is mandatory before final acceptance.
Inaccurate External Data: The effectiveness of dispatch relies on accurate data from external sources (e.g., caller location, address registers, GIS layers for hydrants). Incomplete or incorrect data can lead to response delays.	The system must provide dispatchers with tools to **manually verify and correct information in real-time**, such as adjusting a caller's location pin on the map. During the assignment's inception phase, the Consultant must assess the quality of key data sources and propose strategies for data validation and cleansing.

5. Technical Requirements

This section outlines the technical standards and requirements for the development, deployment, security, and maintenance of the Unified Call Center Module.

5.1. Exchange of Information with other Electronic Systems

The OMS must ensure seamless, automated, and secure information exchange with various external systems to enhance situational awareness and operational efficiency. The Consultant shall ensure interoperability with the following systems and channels:

- **Multi-Channel Incident Intake:** The platform must accept incident reports from channels beyond voice calls.
    - **SMS Integration:** The system must provide a module to receive emergency requests via SMS, automatically creating a preliminary incident card and logging the source phone number.
    - **Third-Party Alarm System Integration (API):** The Consultant shall develop a secure, standardized RESTful API to allow authorized third-party systems (e.g., from private fire and security alarm companies) to automatically report emergencies. This API must accept a structured data payload containing the precise location, incident type, and other essential details.
- **Eco-Patrol Notification:** The system must be capable of automatically transmitting relevant alerts, such as "Forest fire" reports, to the Ministry of Environment's eco-patrol service.
- **General Interoperability:** All integrations must comply with the interoperability standards prescribed by the relevant legislation of the Republic of Armenia. The Consultant must ensure the OMS can be integrated with the existing national interoperability platform.

5.2. Software Specifications

- **System Design:** All new modules and enhancements must adhere to the established UI of the existing OMS, which is primarily based on the Google Material Design system. This ensures a consistent, user-friendly, and intuitive interface that minimizes the learning curve for new users.
- **Mobile Application:**

    - The mobile application for field units must be mobile-friendly and responsive.
    - It must provide all the operations specified in the Scope of Services.
    - The application should possess limited offline capabilities, allowing field units to view critical incident data if they temporarily lose network connectivity.
- **Languages:** The working language of the internal OMS and the mobile application must be **Armenian**.
- **Flexibility:** The OMS must be flexible, making it possible to easily make modifications in case of future amendments made to the legislation or operational procedures.
- **Scalability:** The System architecture must be designed for expansion to support future growth in data volume, concurrent users, and the potential integration of additional emergency services.

5.3. Ensuring System Security

The Consultant must ensure the OMS's data is protected from unauthorized access at all levels. All security measures must be implemented in accordance with the laws of the Republic of Armenia and modern information security best practices.

5.4. System Maintenance within the Warranty Period

The launch of the fully operational System will be followed by a **12-month warranty period** during which the Consultant will provide hypercare support to ensure stability and address any emerging issues at their own expense.

- **Scope of Warranty:** The warranty includes:
    - Correction of all technical and software bugs, errors, or defects that emerge during operation.
    - Implementation of necessary software modifications resulting from amendments made to the legislation.

    - Ensuring the uninterrupted operation of all system functionalities.
- **Support Level:** During the warranty period (without pay), the Consultant is expected to provide hypercare support, with immediate acknowledgment of reported issues and a clear plan for resolution. Critical bugs that halt or severely impact emergency operations must be addressed with the highest priority and resolved within the shortest possible timeframe, to be agreed upon with the Client.

5.5. Performance & Scalability Requirements

The OMS must be architected to meet the following performance, load, and scalability benchmarks to ensure operational readiness under all conditions.

5.5.1. OMS Throughput & Load

- **Normal Daily Load**: The OMS must be capable of handling up to **15,000 calls/incidents per day**.
- **Peak Crisis Load**: During a major crisis or emergency, the OMS must handle a peak load of **2,000 calls/incidents per hour** without performance degradation.
- **Concurrent Users**: The platform must support a minimum of **500 concurrent users** (call-takers, dispatchers, administrators) simultaneously.
- **Form Submission Throughput**: The OMS must handle a peak of at least **500 form submissions per minute**.

5.5.2. UI & System Responsiveness

- **Standard UI Views**: All primary list views, administrative interfaces, and resource lists must load in **under 2 seconds**.
- **Form Load Time**: A standard SOP form must render completely for an operator in **under 2 seconds**.
- **Mobile Map Interaction**: Panning and zooming interactions on the mobile GIS application must render new map views in **under 500ms**.

5.5.3. Transaction & Processing Speed

- **Form Submission**: Server-side validation and data persistence for a submitted form must be completed in **under 500ms**.
- **Alert Latency**: The time from a dispatcher sending an alert to it being triggered at the target station's system must be **under 3 seconds**.
- **Status Update Sync**: A status update sent from the mobile app must be reflected in the central dispatch system in **under 3 seconds**.

6. Reporting Requirements and Time Schedule for Deliverables

The development and introduction of the Unified Call Center Module is envisaged to be carried out within **a 3-month period**. The implementation of each phase is expected to start after the successful written acceptance by the Client of the previous phase's deliverables. However, the Consultant may, with the Client's consent, undertake certain activities in parallel to ensure efficiency.

6.1. Inception and System Design (1 Month)

The goal of this phase is to align on the assignment scope and produce a detailed system specification.

Activities:

- Conduct kickoff meetings with Client representatives and beneficiaries to confirm assignment goals.
- Analyze existing legislation, operational workflows, data volumes, and transaction requirements.
- Develop the final System Requirements Specification (SRS) with a detailed technical and functional design.

Key Deliverable for Acceptance:

- **Inception Report:** This report must be submitted for Client approval and include:
    - The final SRS document.
    - A description of system interoperability and data exchange processes.

    - A proposal on the system design, software, and technical features.
    - A description of user competencies and roles.

6.2. System Development and Testing (1 Month)

With the approved SRS, the Consultant will develop, integrate, and test the software. This phase can be executed using an iterative/agile methodology.

Activities:

- Develop the software and database structures as defined in the SRS.
- Implement data exchange and integration with required external systems.
- Conduct comprehensive system testing (functionality, security, performance, and compatibility).
- Install and operate the system in a test environment for Client review.

Key Deliverable for Acceptance:

- **Phase 2 Report & Test System:** This includes:
    - A fully functional system deployed on a testing server, reflecting all SRS requirements.
    - A report detailing the results of all system tests.

6.3. Deployment, Training, and Final Handover (1 Month)

This final phase involves deploying the system to the production environment, training users, and completing the formal handover process.

Activities:

- Install, configure, and launch the OMS on the production hardware provided by the Client.
- Develop a training program and materials for system users.

- Conduct training for the designated employees on the operation and maintenance of the System.
- Perform final acceptance testing with the Client in the live environment.

Final Handover Deliverables for Acceptance: Upon successful completion, the Consultant shall provide the following:

- **Operational OMS Platform:** The fully functional, tested, and deployed OMS application.
- **Complete Source Code:** The full and final source code (including software codes, graphics, databases, etc.). The Consultant shall transfer all exclusive property rights concerning the Module's software to the Ministry of Internal Affairs (MIA) without additional compensation.
- **User Manuals:** Comprehensive guides for all user roles (call-takers, dispatchers, administrators).
- **Training Materials:** All materials developed for the training program.
- **Third-Party API Documentation:** A comprehensive guide for the Third-Party Alarm System Integration API.
- **Signed Agreements:** A signed agreement conveying a license to use all software components and a signed Warranty Service (without pay) Agreement between the MIA and the Consultant.

7. Business Continuity

To ensure long-term business continuity and knowledge transfer to the MIA, the Consultant is required to provide the following documentation and assets:

- **Complete Codebase Package**: All source code, libraries, assets, and script files should be included, no missing files.
- **Deployment & Setup**
    - Deployment Documentation: Instructions for build, deploy, and rollback with screenshots.

    - Setup & Installation Guides: Step-by-step process to install and configure the application with screenshots.
    - Configuration Files: Descriptions for all config files and what are required to have and defaults
    - Environment Variables: Explanation of each variable, including purpose and defaults.
    - Resource Requirements: Hardware, software, network, and other system prerequisites.
- **Architecture & Integration**
    - High-Level Architecture Diagram: Visual overview of all components of the application.
    - API & Integration Details: Documentation of endpoints and external integration points.
    - Database Documentation: Schemas or ER diagrams, and migration scripts.

8. Qualification Requirements

The qualifications and experience of the consulting firm and its proposed team must meet the minimum requirements set out below.

8.1. Consulting Firm Qualifications

The firm must demonstrate the following qualifications and experience:

- **At least 5 years of specialization** in complex software development.
- **At least 5 years of experience** in developing large-scale, online e-government or public safety systems.
- **Proven experience** in supporting the digital transformation of government services, such as e-government or related sectors.

- **Successful completion of at least two (2) assignments** of a similar nature, size, and complexity in the past 5 years. Preference will be given to projects funded by international organizations (e.g., World Bank, UNDP, EU, or similar).
- **At least two successfully implemented e-government systems**.

Note: All presented experiences must be supported by **documented evidence**. This includes a list of relevant assignments specifying the project/assignment title, client, year, duration, the Consultant's role, scope of services, and funding source. At least two assignments must be of a comparable nature, size, and complexity.

8.2. Team Composition & Qualification Requirements for the Key Experts

The team composition outlined below shall be considered not exhaustive. The Consultant may propose alternative or additional experts, as deemed necessary, to ensure the effective and proper implementation of the project. The responsibility is placed fully on the Consultant to ensure the adequacy and competence of the team for the successful delivery of the assignment.

Role	Number of Specialists	Minimum Qualifications Required
Team lead	1	• Master's degree or higher in Management, Public Administration, Computer Science, or a related field. • At least 5 years of experience in a managerial position. • Experience managing at least one project/assignment of similar size and complexity, preferably in the e-government or public safety sector. • Strong experience in coordinating with various stakeholders in the public and private sectors.
Software Architect	1	• Master's degree in Computer Science, Software Engineering, or a related technical field. • At least 7 years of practical experience in designing and implementing large-scale software systems.

		• Proficiency in dissecting legislation and operational procedures into actionable business processes and system requirements. • Experience in projects/assignments funded by international organizations.
Senior Software Engineer	1	• Bachelor's degree or higher in Computer Science or a related field. • At least 5 years of practical experience in full-stack software development, particularly with technologies relevant to the existing OMS. • Proven track record of developing secure, scalable, and high-performance applications. • Experience working on large-scale government or public sector IT projects/assignments.
UI/UX Specialist	1	• Bachelor's degree in Design, Human-Computer Interaction, or a related field. • At least 5 years of practical experience in designing user interfaces for complex, data-intensive web and mobile applications. • A portfolio demonstrating experience with modern design systems, preferably Google Material Design. • Experience ensuring applications meet accessibility and usability standards.

9. Organizational Aspects

The Client for this assignment is the Ministry of Internal Affairs of the Republic of Armenia and the Prime Minister Office of RA.

The Ministry of Internal Affairs of RA shall be responsible for the overall assignment oversight (including substantive aspects of the Contract), including, but not limited to, receiving and accepting all deliverables related to the System and arising from the Contract, as delivered by the Consultant, as well as signing and approving the Acceptance Acts.

The Prime Minister Office of RA shall be responsible for processing and executing payments to the Consultant based on the Acceptance Act issued and approved by the

Ministry of Internal Affairs of RA, specifically by the Contract Manager/Coordinator identified under the Contract.

All costs required to complete the assignment, such as office space, IT and office equipment, communication, transportation, as well as all training-related costs (i.e., rental of training facilities, simultaneous translation, coffee breaks, printout of handouts, etc.), will be covered by the **Consultant**.

10. Intellectual Property Rights

All exclusive property rights, including copyright, ownership, and any other intellectual property rights, in relation to the Unified Call Center Module software, all related documentation, databases, training materials, APIs, and any other deliverables produced under this Contract (hereinafter referred to as the "Services") shall be transferred to the Client upon final acceptance of the Services, without any additional compensation.

The Consultant shall, upon completion of the assignment, deliver to the Client:

- The complete and up-to-date source code for all developed software, including build scripts and configuration files.
- All design documents, data models, algorithms, and other technical documentation necessary for maintenance, enhancement, or further development.
- All rights to use, reproduce, adapt, translate, distribute, publicly display, and create derivative services/deliverables/products from the Services.

The Client shall have the unrestricted right to disclose and transfer the Services and all related documentation to any third party engaged for technical support, maintenance, or further development.

The Consultant shall not use, copy, or reproduce any part of the Services for purposes unrelated to this Contract without prior written consent of the Client.

11. Liability for Shortcomings

The Consultant shall warrant that the Services, including all software and services provided, will be free from defects in design, materials, and workmanship that could cause the OMS or any of its components to fail to meet the requirements of this ToR.

The warranty period shall be **12 months** from the date of final acceptance of the Services, unless otherwise agreed in writing, and shall be formalized through the signing of a Warranty Service Agreement between the RA MIA and the Consultant. The Consultant shall provide warranty services for the OMS system at no additional cost to the Client.

If any defect, error, or non-compliance is identified during the warranty period:

- The Client shall notify the Consultant in writing, specifying the nature of the issue.
- The Consultant shall correct the defect or non-compliance at no additional cost to the Client within a mutually agreed timeframe, giving priority to issues affecting operational continuity of emergency services.

If the Consultant fails to remedy a defect within the agreed timeframe, the Client reserves the right to engage a third party to perform the corrections at the Consultant's expense.

The warranty period shall be extended by the total duration during which the OMS or any of its components were unusable due to defects covered under the warranty.

12. Guarantee of Intellectual Property Rights

The Consultant shall guarantee that:

- The Services, as Performed, does not infringe upon any third-party intellectual property rights.
- The Consultant has obtained all necessary rights, licenses, and permissions to transfer ownership of the Services to the Client.

The Consultant shall indemnify and hold harmless the Client against any claims, damages, or legal actions arising from alleged infringement of third-party intellectual property rights related to the Services.

The Consultant shall, at its own expense, defend or settle any such claims and bear all costs associated with resolving them, including payment of damages, legal fees, and any required modifications to the Services to eliminate infringement.

Annex A: Sample SOP Implementations

The following examples, derived from the provided classification documents, illustrate the type of complex logic the **SOP Form Builder (Module 2)** must support. They are representative and not exhaustive.

Example 1: Rescue SOP - "Fire in a Forest/Landscape"

This SOP demonstrates the need for conditional questioning and cross-agency triggers.

- **Incident Classification**: The system must handle the hierarchy: FIRE > Fire in a forest/landscape.
- **Primary Questions**: The initial question "What is burning?" presents multiple options (Forest, Peat bog, Reedbed, etc.) .
- **Conditional Logic**:
    - Selecting an option triggers a specific set of follow-up questions .
    - Answering "Yes" to "Are there any casualties?" triggers further medical questions and automatically generates a notification/dispatch order for ambulance services.
- **Cross-Agency Trigger**: Answering "Suspicion of arson" to the question "What could have caused the incident?" must trigger a notification/dispatch order to the Police.
- **Police Notification:** Answering "Suspicion of arson" to the question "What could have caused the incident?" must automatically trigger a notification/dispatch order to the Police.
- **Eco-Patrol Notification:** In case of receiving a "Forest fire" alert, the information must also be transmitted to the Ministry of Environment's eco-patrol service.

Example 2: Police SOP - "Robbery"

This SOP demonstrates the need for dynamic workflows and priority setting based on the timing of the event.

- **Incident Classification**: The system must handle the classification: Violence > Robbery.
- **Dynamic Workflow**: The system must present a different workflow and set of questions based on the answer to "When did the robbery take place?".
    - **"Right now, a moment ago"**: This triggers the highest C-priority for police , a rapid sequence of essential questions, and an immediate dispatch order. It may also involve creating a conference call with the dispatcher.
    - **"Some time ago"**: This triggers a lower A-priority and a more detailed, less time-critical set of questions to gather evidence.
- **Priority Setting**: The system must automatically assign the correct priority level based on the user's input, which in turn dictates the expected response time and procedure.