

**Technical Requirements**

In-Vehicle Monitoring System

(GPS Tracking)

Contents

[**Introduction** 3](#_Toc179123987)

[**Scope of Work** 3](#_Toc179123988)

[Software Provision Features Required: 3](#_Toc179123989)

[Support for Existing Installed Tracking Devices 5](#_Toc179123990)

[Replacement of Installed SIM Cards 5](#_Toc179123991)

[Pricing for New Tracking Devices 5](#_Toc179123992)

[Installation of New Devices 6](#_Toc179123993)

[Running Costs 6](#_Toc179123994)

[Data Migration 6](#_Toc179123995)

[Additional Considerations 6](#_Toc179123996)

[Evaluation Criteria 6](#_Toc179123997)

[**Pricing Breakdown Table** 8](#_Toc179123998)

[**Evaluation Criteria** 10](#_Toc179123999)

# **Introduction**

The Lebanese Red Cross (LRC) currently operates an existing GPS tracking system with 514 installed devices across our fleet. We are inviting tenders from qualified service providers to manage this system, including the replacement of all existing SIM cards and the integration of the current tracking data into a new software platform. The scope also includes providing ongoing software support, maintenance, and potential enhancements to the fleet management system, as well as pricing for new tracking devices similar to those currently in use.

# **Scope of Work**

This tender covers the following areas:

# Software Provision Features Required:

**Live Map and Tracking**

* Real-time display of all vehicles on a single screen.
* Home and roaming tracking capability.
* History tab to pull and replay historical trips live on the screen.
* Live pop-up notifications for important events.

**Driver and Vehicle Management**

* Drivers registration and identification via RFID or other means.
* Monitoring of driver behavior (harsh driving, cornering, towing, crash alerts).
* Ability to record maintenance activities, accidents, and set reminders for future maintenance.
* Driver behavior analysis and reporting (e.g., speeding, idling).

**Geofencing and Route Management**

* Creation of geofences (circular, rectangular, linear, random shapes).
* Route planning and monitoring of planned versus actual routes.
* Ability to set specific routes for vehicles and monitor adherence.

**Reporting and Analytics**

* Custom report creation with various export formats (Excel, PDF, CSV, etc.).
* Dashboard customization to monitor key metrics (e.g., fuel consumption, idling percentage).
* Ability to build custom reports from scratch.

**User Management**

* Unlimited user creation with role-based access control.
* Ability to group vehicles under departments.
* Customized dashboards for each user, displaying relevant information.

**System Integration and Scalability**

* APIs and SDK toolkit for integration with other systems.
* Scalable solution capable of managing up to 10,000 units per server.
* Constant rollout of new features and updates.

**Notifications and Alerts**

* Customizable notifications for various events (e.g., harsh braking, speeding).
* Ability to set up notifications based on user preferences.
* Real-time alerts delivered via multiple channels (SMS, email, app).

**Mobile App Features**

* Multilingual support for Android and iOS apps.
* Real-time tracking and management of vehicles from the mobile app.
* Notifications and alerts through the mobile app.

**Modular Platform**

* Ability to enable or disable additional applications as needed.
* Option to add paid additional features or modules as required by LRC.

**Security Features**

* Two-factor authentication.
* Data encryption in transit and at rest.
* Compliance with relevant data protection regulations.

# **Support for Existing Installed Tracking Devices**

* + Provide comprehensive support for the GPS tracking devices that are already installed across the fleet. This includes ongoing technical support, troubleshooting, and maintenance to ensure optimal functionality.

# **Replacement of Installed SIM Cards**

* + Replace all SIM cards currently installed in the 514 existing vehicles across Lebanon.
  + Provide SIM replacement pricing and ensure that the new SIMs are compatible with the existing tracking devices and the proposed software.

# **Pricing for New Tracking Devices**

* + Provide pricing for new GPS tracking devices that are similar to the currently installed devices **Teltonika FMC130**, ensuring they meet the following requirements:
    - **GNSS Support**: GPS / GLONASS.
    - **Input/Output Ports**: Minimum 3 inputs and 3 outputs for basic models, and 4 inputs and 4 outputs for models with CANBUS.
    - **Driver Behavior Monitoring**: Capabilities to monitor harsh driving, cornering, towing, and crash alerts.
    - **Device Memory**: Internal memory and optional external memory support.
    - **Additional Features**: RFID for driver identification, fuel sensor compatibility, and internal GPS/GSM antennas.

# **Installation of New Devices**

* + Provide installation services for the new GPS tracking devices, including:
    - **Installation**: Pricing for installation services per device in all regions of Lebanon.

# **Running Costs**

* + Provide detailed running costs for the fleet management system based on the following two scenarios:
    - **Scenario 1: 5-Second Refresh Rate**:
      * Cost per vehicle for SIMs provided by the supplier.
    - **Scenario 2: 60-Second Refresh Rate**:
      * Cost per vehicle for SIMs provided by the supplier.

# **Data Migration**

* + Migrate all historical and current data from the old system to the new system, ensuring data integrity and accuracy throughout the process.

# **Additional Considerations**

* **Customization and Scalability**: The solution should be flexible and scalable, capable of accommodating future growth and changes in operational requirements.
* **Support and Maintenance**: Ongoing technical support, regular software updates, and security patches are expected as part of the service provision.

# **Evaluation Criteria**

The proposals will be evaluated based on the following criteria:

1. **Relevant Experience with Similar Projects**
   * **Experience with NGOs**: Preference for service providers with a successful track record of similar projects with NGOs. Include project details, scope, outcomes, and challenges.
2. **Company Profile**
   * **Number of Employees**: Provide a detailed company profile, highlighting the technical team assigned to the project.
   * **References**: Include references from similar projects, especially in fleet management or GPS tracking, with contact details and project outcomes.
3. **System Flexibility and Scalability**
   * **Flexibility**: Ability of the software to adapt to changing needs without significant modifications, including feature integration and report customization.
   * **Scalability**: Capability to scale for a larger number of vehicles or users, with an explanation of design and limitations.
4. **Pricing**
5. **Technical Expertise**
   * **Knowledge and Skills**: Evaluation of the service provider’s expertise in fleet management software, GPS tracking, IT infrastructure, and data migration.
   * **Support Capabilities**: Evaluation of the provider's ability to offer robust and reliable technical support

Please fill the below pricing breakdown table “

# **Pricing Breakdown Table**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Description | UOM | Quantity | Unit Cost (USD) | Total Cost (USD) | Notes |
| 1. SIM Card Replacement for Existing Vehicles | | | | | | |
| - SIM Card Replacement | vehicles | 514 |  |  | Cost for replacing SIM cards in vehicles across Lebanon |
| 2. New Device Installation | | | | | | |
| - Device Installation | Device | 25 |  |  | Installation cost for new devices |
| - Device Price | Device | 25 |  |  | Cost for new devices |
| 3. Software Support and Maintenance | | | | | | |
| - Annual Software Support (per vehicle) | vehicles | 514 |  |  | Annual cost for software support and maintenance |
| 4. Running Costs | | | | | | |
| - SIM provided by Supplier (1-min refresh rate) | vehicles | 114 |  |  | Cost per vehicle per month/year for 1-min refresh rate |
| - SIM provided by Supplier (5-sec refresh rate) | vehicles | 400 |  |  | Cost per vehicle per month/year for 5-sec refresh rate |
| 5. Data Migration Costs | | | | | | |
| - Data Migration from old to new system | Device | Dato of 514 vehicle for 3 years |  |  | Ensure data integrity and accuracy |
| 6. Additional Costs | | | | | | |
| - Any other costs (please specify) |  |  |  |  | Description of additional costs |
| Grand Total |  |  |  |  |  |

# **Evaluation Criteria**

|  |  |
| --- | --- |
| **Evaluation** | **Points** |
| **Company Profile** |  |
| **Relevant experience with similar projects:** Demonstrated experience in providing GPS tracking solutions and fleet management systems, with projects involving at least **XXX** vehicles or similar. |  |
| **Number of Employees:** Availability of a dedicated technical team minimum of **XX** for supporting large-scale fleet management and GPS tracking systems. |  |
| **References:** Include **X** references from similar projects involving large-scale GPS tracking and fleet management, especially with integration and data migration. |  |
| **Technical Expertise** | **70%** |
| **Flexibility:** Ability to adapt the system to include additional modules, customizable reports, and flexible dashboards | **5%** |
| **Scalability:** The system must scale up to manage up to 1,000 vehicles with up to 150 users with different security profile and accommodate potential future expansion. | **5%** |
| **Knowledge and Skills**: Expertise in software provision (live map tracking, driver behavior analysis, geofencing, route management, notifications, mobile apps), data migration, and system integration (APIs). | **5%** |
| **Support Capabilities**: Ability to provide reliable technical support for software updates, device compatibility, and troubleshooting. | **10%** |
| **Support for Existing Installed Tracking Devices:** Capability to provide comprehensive support for the 514 pre-installed devices, including ongoing maintenance and troubleshooting. | **10%** |
| **SIM Card Replacement and Integration:** Ability to replace all existing SIM cards in the 514 vehicles and ensure compatibility with the current GPS devices and the proposed software. | **5%** |
| **Software Features and Customization:** Provision of core features, such as real-time tracking, history playback, customizable dashboards, multi-user support, notifications, and mobile app functionality | **5%** |
| **Data Migration Capabilities:** Demonstrated ability to migrate all historical data from the old system to the new one without data loss or errors. | **15%** |
| **Security Features:** : Ensure the system includes secure authentication, data encryption, and compliance with data protection regulations. | **10%** |
| **Pricing** |  |
|  |  |