

# Digitalisation of emergency services at Jalal-Abad and Batken ambulance stations including digital health services for remote areas.

#### Project number/ cost centre:

2017.3503.4-023

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# 0. List of abbreviations

- AVB General Terms and Conditions of Contract (AVB) for supplying services and work 2018
- ToRs Terms of reference



#### 1. Context

An SFF measure has been approved to support the digitalisation of emergency services at Jalal-Abad and Batken ambulance stations. This measure aims to support the improvement of the southern regions' emergency services of Jalal-Abad and Batken of the Kyrgyz Republic by adapting the software developed and successfully implemented at the Emergency Medicine Centre of Osh City with the support SFF measure. To digitalize the process of providing qualified care for residents of remote regions, it is necessary to develop new software solutions for the coordination and transportation of patients between the regions Osh, Jalal-Abad and Batken (Automation of the Sanitary Aviation process) which could include Telemedicine functions since the process of remote consultations for making decisions on transportation of patients is already happening, however, only by telephone. The owner of the software package is the Ministry of Health (MoH)/e-Health Centre. In the future, the owner will carry out the process of adapting the already developed software to other cities and areas with a smaller (remote) population, because of adaptation the MOH will receive the full versions of the software at all levels: country level, regional level, district level. The MoH/e-Health Centre will support the process of implementing the information system.

The Jalal-Abad Ambulance provides specialized medical service and free 24-hour emergency medical care to adults and children in the city of Jalal-Abad who have life-threatening conditions or need immediate medical attention. The coverage radius of emergency service is about 40 km. So, as part of the administrative reform in Jalal-Abad city, in the short term, another part of the adjacent territories of the Jalal-Abad region should be annexed. Also, around the city, there is the "Suzak" district (the most densely populated area in the region. with around 241,000 inhabitants) with a service radius of 75 km, the population of which is partially served by the Jalal-Abad SSMP. In the Ambulance, 3 emergency response teams and 3 teams of dispatchers cover 24 hours of service. Currently, the Ambulance fleet consists of 5 vehicles. Communication is based on outdated technologies and there is no access to mobile phones. In total, 18 people work in the Jalal-Abad ambulance. The number of requests to the Ambulance is steadily increasing from year to year. Dispatchers respond to 40-60 calls per day, creating time-consuming paperwork, and ambulance crews respond to an average of 20-30 calls per day. During peak hours, callers wait 2-3 hours for an ambulance to receive emergency medical care. Currently, there is no digital application in use that can improve ambulance services. There is no access to computers.

The Jalal-Abad Regional Clinical Hospital (JRCH) also provides transport assistance for patients requiring highly qualified care from rural hospitals where it is impossible to provide complex qualified care, as well as telephone consultations with doctors from district hospitals. If the doctors of the JRCH are not able to provide the medical service which is needed, the patient, then, in agreement with the Osh Regional United Clinical Hospital (ORUCH) tertiary level, is transported to ORUCH. Today, all processes for recording consultations and transporting patients between hospitals occur only on paper, as a result, it is difficult to monitor the quality of referral process and medical consultation.

At present, the Batken ambulance station at the Batken Family-Medicine Centre (BFMC) assists about 140 thousand people in the city of Batken and nearby districts of the Batken region. The coverage radius is about 100 kilometres. The Batken Ambulance includes 5 more separate points for providing medical care located in remote villages. In the Ambulance, 7 response teams and 6 dispatch teams work 24 hours a shift. Currently, the ambulance fleet consists of 7 vehicles. The communication is based on outdated technologies and there is no access to mobile phones.



A developed set of services and mobile applications will provide automation and digitalization of all relevant work processes of the Ambulance service (service for receiving, processing, and transferring calls, preparing reports and statistics); this will reduce the time spent on each stage of the ambulance's work. Moreover, the number of calls made with delay will be reduced. In addition, this system will allow monitoring and rational management of outreach teams as well as the development of advanced reporting and statistics systems. The SFF measure contributes to making emergency ambulance care more effective with the help of digitalized tools and procedures, which should reduce the waiting time, and speed up the process for emergency transportation.

The GIZ needs the services of a consultant, to provide advisory and technical support to the GIZ team, to the e-health centre, to the ambulance staff, IT company, coordination and oversight, to ensure the whole process of Digitalisation of emergency services at Jalal-Abad and Batken ambulances, for the successful execution of the SFF measure.

# 2. Tasks to be performed by the contractor.

The contractor is responsible for providing the following services, as broken down into phases:

#### Phase 1: Assessment of existing e-ambulance station

During this phase, the consultant will assess (up to 5 days) Osh, Jalal-Abad and Batken cities and Suzak region ambulance stations. The aim is to explore their automated ambulance process, understand the Kyrgyz context and learn from the challenges and successes of their experience. The consultant will conduct an analysis of work processes at the Jalal-Abad and Batken cities and Suzak region ambulance station. The assessment will focus on prospects for a successful performance improvement and increasing quality of delivery of digital emergency health care services. This blueprint of digital system of emergency services should serve for the upscale in Jalal-Abad, Batken, Suzak (Jalal-Abad region) and, ultimately, in other region of the country.

#### Phase 2: Identify the scope of work for local service provider(s) and develop ToR/s

Based on the assessment findings and consultations with stakeholders, the consultant will develop the detailed scope of work (SOW) and corresponding ToR which will enable GIZ to engage a firm or firms to conduct the following tasks:

- Assess and map out the "patient route" for ambulance stations in Jalal-Abad, Batken cities and Suzak region.
- Assess and map out the "patient route" for disaster medicine department in the cities of Osh, Jalal-Abad, and Batken.



- Identify the Jalal-Abad, Batken cities and Suzak region ambulance needs to improve the efficiency of this patient route.
- Provide a detailed and justified procurement list of hardware and software that will complement optimization of selected patient route or service process.
- Development of training materials for users and e-Health centre, operating procedures and user guides, design and coordinate a train the trainer program.

Once the draft SOW and ToR/s are developed, the consultant will conduct a discussion/workshop in Bishkek for the MOH, e-Health centre, health development centre, Jalal-Abad and Batken city council and Jalalabad, Batken, Suzak ambulance. The consultant will develop a presentation for this event. Based on this discussion/workshop, the SOW will be finalized, and GIZ will launch a tender that will include opportunity for a bidder's ask questions.

In addition, the consultant will conduct an introductory workshop (1 or 1.5 days) on optimization and automation of processes in an ambulance station for middle and senior managers.

#### Phase 3: Overseeing and monitoring of software development process.

Pending the approval of SOW GIZ will engage IT firm or firms. During this phase, the engaged IT firm (or firms) performs the work in accordance with the scope of work. The IT firm verifies the list of needed hardware/software for each selected healthcare facility, verifies/finalizes automation of processes and starts development/adaptation of digital solution/software. It is anticipated that the work /software development with Jalalabad and Batken ambulance stations and e-health centre will take up to 6 months. Also, develop new software solutions for the coordination and transportation of patients between the regions Osh, Jalal-Abad and Batken (Automation of the Sanitary Aviation process) which could include Telemedicine functions. The IT consultant will provide guidance and monitoring during this phase.

<u>Phase 4: Procurement and implementation of equipment and overseeing adaptation - 3-4</u> months in duration in Jalalabad, Batken, and Suzak ambulance.

During this period, the consultant will support GIZ and guide in the procurement process of GIZ-approved hardware/software and will oversee software adaptation and testing in Jalal-Abad, Batken, and Suzak ambulances. The consultant will ensure that any legal requirements have been met, in order to incorporate medical forms into the system and to officially launch the automation.

During this phase, the contracted IT company finalizes development of the automation process and software, conducts testing of the automation process as well as training of users at the Jalal-Abad, Batken, and Suzak ambulance stations. This step requires that GIZ completes the procurement of equipment. The coordinating consultant will oversee this process

#### During all phases:

- Facilitate communication between MoH, GIZ project team, e-Health centre and IT consultants (firm or firms)
- Create and facilitate a working group including the MOH/E-Health Centre, Jalal-Abad and Batken City Hall, Suzak rayon Administration and the IT Firm or Firms to steer the project.
- Organization and coordination of meetings as required.

Develop the necessary visual materials, training materials and reports for the planned workshops.



Certain milestones, as laid out in the table below, are to be achieved by certain dates during the contract term, and at locations:

Milestone	Timeline
Ambulance stations of Osh, Jalal-Abad and Batken assessed, and report submitted and approved	June 2024
<ul> <li>Development of detailed scope of work for local service provider</li> <li>Developed ToR (English and Russian) for an IT company to develop and implement software.</li> <li>List of technical equipment's</li> </ul>	June-July 2024
<ul> <li>IT company/ies selected for contracting         <ul> <li>Technical assistance in developing evaluation grid /answering bidder questions</li> <li>Technical assistance in evaluating companies</li> </ul> </li> </ul>	August 2024
<ul> <li>Software developed (new functions), adopted existing software for Jalal-Abad/Batken/Suzak and tested for ambulance station.</li> <li>Consultant responsible for overseeing, monitoring, and providing, quality assurance.</li> <li>technical guidance to ensure software developed on time and to requirements</li> </ul>	September- October 2024
<ul> <li>Software adapted for Jalal-Abad/Batken/Suzak ambulance station, piloted and implemented.</li> <li>Consultant responsible for overseeing and providing technical guidance to ensure software suitable for Jalal-Abad/Batken context.</li> <li>Consultant responsible for overseeing and providing technical guidance during piloting and testing</li> <li>Consultant will oversee development of user manuals and SOPs</li> </ul>	October- December 2024
<ul> <li>Hardware/required equipment procured and installed</li> <li>Consultant responsible for overseeing IT firm producing list of requirements</li> <li>Consultant will provide technical expertise to assist GIZ in procurement process as required</li> <li>Consultant will oversee installation and is responsible for navigating legal processes</li> </ul>	September- November 2024
Capacities of e-health centre and Jalal-Abad/Batken/Suzak ambulance stations employees strengthened through trainings and workshops	October- November 2024
Software developed for Osh/Jalalabad/Batken/Suzak and tested for disaster medicine department "Sanitary Aviation". - Consultant responsible for overseeing, monitoring, and providing, quality assurance.	December 2024- February 2025



<ul> <li>Technical guidance to ensure software developed on time and to requirements.</li> </ul>	
<ul> <li>Software adapted for Jalal-Abad/Batken/Suzak emergency services, piloted and implemented.</li> <li>Consultant responsible for overseeing and providing technical guidance to ensure software suitable for Jalal-Abad/Batken/Suzak context.</li> <li>Consultant responsible for overseeing and providing technical guidance during piloting and testing.</li> <li>Consultant will oversee development of user manuals and SOPs.</li> </ul>	March – May 2025
Knowledge transfer for future replications of the digital emergency call and information system.	June-August 2025
<ul> <li>Systematization, documentation of adaptation and application experiences in Jalal-Abad and Batken emergency services.</li> <li>Development of adaptation, implementation recommendations (for MOH, HCO and e-Health center) for the implementation of the digital emergency call and information system in other cities.</li> </ul>	
Liaison and facilitation between stakeholders	Ongoing
<ul> <li>Conduct consultations to explore needs and expectations of stakeholders such as the eHealth centre, MoH and other relevant actors.</li> <li>Conduct workshops/roundtables/presentations as needed.</li> <li>Coordinate communication and act as an intermediary between actors</li> <li>Create and facilitate a working group including the MOH/E-Health Centre, Jalal-Abad, Batken City Hall, Suzak rayon Administaration and the IT firm/s to steer the project.</li> </ul>	
Accompanying medical facilities during technical support from an IT company	June-August 2025
Knowledge management and reporting (En/Ru languages)	
<ul> <li>Conduct seminars, workshops, presentations as needed to disseminate information necessary for project implementation or sharing between stakeholders.</li> <li>Develop training materials</li> <li>Assessment report</li> <li>Interim report 1 to GIZ</li> <li>Interim report 2 to GIZ</li> <li>Recommendations (report) to MOH based on the adaptation and</li> </ul>	Ongoing June 2024 December 2024 May 2025
<ul> <li>Recommendations (report) to more based on the adaptation and application experience.</li> <li>Final presentation for GIZ and other stakeholders on results</li> <li>Final report to GIZ</li> </ul>	July 2025 July 2025 August 2025



Period of assignment: From 14.06.2024, until 30.08.2025.

# 3. Concept

In the bid, the bidder is required to show how the objectives defined in Chapter 2 are to be achieved, if applicable under consideration of further specific method-related requirements (technical-methodological concept).

### Technical-methodological concept

**Strategy**: The bidder is required to consider the tasks to be performed with reference to the objectives of the services put out to tender (see Chapter 1). Following this, the bidder presents and justifies the strategy with which it intends to provide the services for which it is responsible (see Chapter 2).

The bidder is required to describe the key **processes** for the services for which it is responsible and create a schedule/work plan that describes how the services according to Chapter 2 are to be provided. In particular, the bidder is required to describe the necessary work steps and, if applicable, take account of the milestones and contributions of other actors in accordance with Chapter 2.

### 4. Personnel concept

The bidder is required to provide personnel who are suited to filling the positions described, based on their CVs (see Chapter 6), the range of tasks involved and the required qualifications.

The below specified qualifications represent the requirements to reach the maximum number of points.

### Expert 1

Tasks of expert 1

- As per chapter 2

Qualifications of expert 1

- Education/training (2.2.1):
  - Degree in information technology, computer/software engineering or other IT relevant field
- Language (2.2.2):
  - Russian (Native or C2 level)
  - English (business proficiency or C1 level)
- General professional experience (2.2.3):
  - Minimum 15 years professional experience in software development
  - Professional experience in project management
  - Professional experience in training and capacity development
- Specific professional experience (2.2.4):
  - Experience developing ToRs
  - Experience in business process analysis



- Experience in IT analysis
- Professional experience in digital solutions or technologies for the health sector, emergency services
- Leadership/management experience (2.2.5):
  - Minimum 10 years professional experience overseeing/managing processes or teams
- Regional experience (2.2.6):
  - International experience outside Central Asia region

### 5. Costing requirements

#### Assignment of personnel

Expert 1: Assignment in Kyrgyzstan for total 90 expert days

# Travel

The bidder is required to calculate the travel based on the places of performance stipulated in Chapter 2 and list the expenses separately by daily allowance, accommodation expenses, flight costs and other travel expenses.

### 6. Requirements on the format of the bid

The structure of the bid must correspond to the structure of the ToRs. In particular, the detailed structure of the concept (Chapter 3) is to be organised in accordance with the positively weighted criteria in the assessment grid (not with zero). It must be legible (font size 11 or larger) and clearly formulated. The bid is drawn up in English.

The complete bid shall not exceed 10 pages (excluding CVs).

The CVs of the personnel proposed in accordance with Chapter 4 of the ToRs must be submitted using the format specified in the terms and conditions for application. The CVs shall not exceed 4 pages. The CVs must clearly show the position and job the proposed person held in the reference project and for how long. The CVs can also be submitted in English.

If one of the maximum page lengths is exceeded, the content appearing after the cut-off point will not be included in the assessment.

Please calculate your price bid based exactly on the aforementioned costing requirements. In the contract the contractor has no claim to fully exhaust the days/travel/workshops/ budgets. The number of days/travel/workshops and the budget amount shall be agreed in the contract as 'up to' amounts. The specifications for pricing are defined in the price schedule.