**ANNEX I**

**THE REQUIREMENTS FOR THE**

**WEB-BASED SYSTEM FOR INTERNAL MONITORING,**

**AND ESTABLISH A CUSTOMER SATISFACTION**

*Software Requirements Specification (SRS)*

*Мэдээллийн технологи, статистикийн хэлтэс*

*Бодлого төлөвлөлтийн газар*

*Ministry of Labour and Social Protection*

2021

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1. **INTRODUCTION**
   1. **Objective**

The objective of the system is to develop a web-based program for internal monitoring and customer satisfaction system for social welfare, labor, and social insurance services aimed to measure the workload of an employee and the organization, to determine the level of satisfaction of each citizen who received the service and if a citizen is dissatisfied with the service, conduct a survey to find out the reasons and analyze the reasons and identify the related parties, to resolve conflicts, also to study the process to make every service satisfactory to the citizens and improve the operation of the organization and personnel – and to introduce the system to the 21 provinces and 9 districts in labor and social protection sector.

The program should develop three types of services provided under social insurance, social welfare, and employment promotion legislation.

* 1. **Scope**

The system should cover about 2,500 staff through agencies under the MLSP, such as SIGO, GOLWS, social insurance departments, labor and welfare services departments of provinces, districts, and sum's social insurance inspectors, and sum and khoroo social workers.

1. **FUNCTIONAL REQUIREMENTS**
   1. **Controlling section**

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| Controlling section | | |
| 1. | The system should be located on the web of each unit and the websites will be located in the national data center.  It should be possible to connect to the system of related agencies. | 1. The system should have been located on the MLSP core server. 2. The Staff of the relevant departments of the information and technology departments of MLSP, SIGO, and LSWA is the core admins. 3. The system is should be able to available as a sub-system of E-halamj, Ejob, and SIGO's integrated core system. |
| 2. | The system should have control, and manage configuring subsystems. | 1. The system should be is dynamic 2. To explicitly mention that the system has to be designed in a manner that can be configured by the authorized administrator to add/edit or remove survey questions and responses without having to do this from the backend process and avoid hard coded design. 3. The system should provide a user friendly interface to configure the business rules. 4. Control employee registration and records 5. Control and manage affiliated departments and units 6. Control the interaction with other system section 7. Control the registration section 8. Control the settings section of user access privileges 9. Control the audit and logging section 10. Control the reporting section 11. Manage service types 12. Manage the evaluation section 13. Manage the documents 14. Manage the web 15. Manage the research area. |
| 3 | The system should have service's and digital data consolidation and reporting sections in the respective department's authorities | 1. It should access all senior management levels, such as agencies and ministries, and should direct access to daily work data. |
| 4 | The user should be registered | 1. The user should be registered by the unit administrator. |

* 1. **Service section**

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| Service section | | |
| 1 | Registration of services (from the employee) | 1. Services provided are to be categorized into two types: with and without tickets. 2. Services are to be provided in person, by telephone, or online. 3. Keep the phone number of the customer who is currently receiving services, service-related comments, and information of the service personnel 4. Keep a record of service-related documents 5. Keep a record of received services 6. Keep the timestamps of received services and waiting duration on ticketed services 7. View the customer’s previously received services, determine satisfaction, and support the staff 8. The service can be canceled, in which case the information will not be saved 9. The service may be halted, in which case it may be resumed and the interval shall be deducted from the service time 10. Information about services should be delivered via Short Message Service (SMS) |
| 2 | To be able to view working time recording  (from the employee) | 1. Employees’ time records are to be displayed on the web system. 2. Employees' clock-ins are to be recorded manually or by themselves or with a timekeeping device. 3. Regardless of the registration method, employees should be able to view the time records of all employees. |
| 3 | Be able to evaluate services and determine satisfaction levels (from the customers’ side) | 1. To be available to take queue number after arriving at the building, get the service, create a registration for the service that they have received, and evaluate the satisfaction level through the kiosk or online. 2. Customers will be available to evaluate services via messaging services of mobile operators, and this method should be arranged in an affordable manner. 3. Be able to evaluate the service via SMS from the mobile operator 4. Be able to evaluate through the website of the organization 5. Be able to evaluate through kiosk machines, if received a ticketed service 6. Be able to record each given evaluation, and prepare a report 7. Be able to identify and register relevant parties of the dissatisfied service to observe the connection, and publish quantitative and graphical reports 8. Be able to report satisfaction data in quantitative and graphical reports for each organization, affiliate unit, and employee as relevant parties and affiliates 9. Kiosk queue number tickets should have a BARCODE, with which customers should be able to evaluate satisfaction after receiving a service. Without the BARCODE, customers will still be able to evaluate satisfaction levels through web or message services. 10. Reports should be made on how unsatisfied services are being handled. |
| 4 | Be able to add or remove services available to the customer | 1. Due to legislative reforms, some services are ought to be temporary. For this reason, it should be able to remove, change the types of services and should be dynamics. 2. Make it possible to add or remove services available to the client |

* 1. **Supervision**

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| Supervision section | | |
| 1 | Internal monitoring, transparency | 1. The number of daily services, types of services provided, tests, system operation, sent and printed payment requests should be available to senior officials and heads of relevant units. 2. Citizens should be able to view general data and consolidated reports. (link the websites) |
| 2 | Evaluation | To be able to view each employee’s evaluation, and retrieve data (internally) |

* 1. **Setting section of the user access privilege**

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| The user access privilege setting section | | |
| 1. | Be able to configure access rigths for any user to access any part of the system | 1. The system shall be consistent with the main parts of the access rights setting system 2. Access rights should have a level of viewing rights or revising rights. 3. Access right’s setting section shall have flexible options. 4. The users should be informed when access rights are revoked. |
| 2. | Functionality to support in combination with independent authentication system and DAN systems. | 1. The system administrator and other users should be able to log in to the system by using their own DAN system authority access. |

* 1. **Audit and logging section**

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| Audit and log registration section | | |
| 1. | The system shall maintain an audit trail of any changes or updates made in any information that are considered vital | 1. Log the users who are accessing the system;   1. Log the fields that are being modified; 2. Log the results of these modifications; 3. Log attempted breaches of access; 4. Log attempted breaches of modification rights; 5. Date of modification (timestamp) |
| 2. | Ability to generate audit report | 1. The report should be generated in both detail and brief versions. 2. The audit report should be available for printing. 3. The report should be exported in pdf, docx, xlsx, csv formats. |

* 1. **Website**

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| To have a website | | |
| 1 | The system will include the organization’s website | 1. The web system shall include a website that meets the requirements of the government organization 2. Information on services should be compiled and reported at regular intervals 3. Report service load 4. Be able to view accounts connected to service charge 5. Be able to take satisfaction surveys 6. Display information on visits to the website 7. Able to connect to an online customer support 8. Display timetable 9. Display contact information such as the address of the organization, e-mail, and telephone number 10. Present the total number of clients currently receiving services, the number of clients who received services in a given year and the average performance of the organization 11. Frequently Asked Questions (FAQ) page should be included 12. To have a service evaluation menu 13. To be able to further enhance and modify the menu bars and content of the website |

* 1. **Technical connection section**

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| Техникийн хэсэг | | |
| 1 | 1. To have a direct connection with queue number displayer, and ticket dispenser machines | * 1. Be able to connect to a ticket dispenser   2. Tickets must have a unique registration number and the registration number must be barcoded   3. Able to evaluate services using the barcodes   4. Able to adjust settings of ticket |
| 2 | 1. Be able to monitor SMS about service information /with authorization level/ | * 1. View sent messages   2. View incoming messages   3. Categorize incoming messages   4. View categorized messages   5. Be able to appoint holders to categorized message |

* 1. **Additional special requirements**

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| Other requirements | | |
| 1 | Payment request | 1. Employees of the organization are to be able to write payment requests 2. Be able to mass print, return, and cancel written payment requests for each employee, for each account, for each unit |
| 2 | Building the capacity of the staff | 1. Take tests from new employees 2. Take tests from employees using the software 3. Employees will take a quiz to improve or to expand their knowledge on legislation and other issues in order to improve daily operations 4. The quiz should be taken every time employees log into the system |
| 3 | Integrating data | 1. Integrate up-to-date data and information 2. Be able to collect various quantitative data 3. Integrate collected quantitative data 4. Be able to obtain satisfaction surveys |

* 1. **Reporting section**

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| Reporting section | | |
| 1. | Ability to generate Standard/ pre-prepared reports | 1. Pre-prepared report templates should be prepared. 2. The report should be generated by selecting from the prepared templates. |
| 2. | Ability to generatet dynamic reports | 1. The user shall generate a report dynamically by selecting the report field. |
| 3. | Ability to generate reports in the form of summary and list. | 1. The user should be able to select the fields and generate a report as a list. 2. The report, generated in the form of a list, should be able to generate in summary. |
| 4. | The system shall support file formats of data processing applications. | 1. Generated reports shall be in pdf, docx, xlsx formats. 2. The report should be available for printing. |
| 5 | Reporting | 1. Reports can be obtained from the system in the form of numbers, tables and graphs. 2. The number of services, the number of satisfied and unsatisfactory evaluations, the use of working hours, the workload can be viewed and reported by each unit and employee. 3. The user generates a report dynamically by selecting the report field. 4. Reports are to be available in pdf, docx, and xlsx formats. 5. Reports should be able to be printed. |
| 6 | Reports should be presented in an elaborate manner | 1. Display the services provided by each employee, time spent, received documents, and each type of service 2. Present the evaluation and results for each employee’s service 3. Present employee’s breach affiliated with receiving a document or identified infringement 4. Above parameters should be able to displayed in selected dates |

1. **TECHNICAL REQUIREMENTS**
   1. **Programming language**

System should be written in an open-source programming language.

* 1. **Database**

It should be based on open source and licensed database management software.

* 1. **Security**

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| Security | | |
| 1. | The system shall support the SSL protocol | 1. Section for Admin and user shall support SSL protocol. 2. Web client - Use SSL between web servers 3. Web server - Use SSL between application servers |
| 2. | Should be protected from SQL injection | 1. Protecting technology from SQL injection should be implemented. |
| 3. | Support database encryption | 1. Supports external level encryption of the database management system (DBMS) |
| 4. | User's password security should be ensured. | 1. The password should be encrypted and stored in the database 2. Be able to define a password policy |
| 5. | Be able to back up the database | 1. FULL DUMP the database 2. REAL TIME database copy |
| 6. | Security of the data transmission shall be ensured. | 1. Data transmission over the network shall be encrypted |
| 7. | Be able to recover password | 1. In case of user forgets the password, it should be available for recovery by using a mobile phone or registered mail. |

* 1. **Design requirements**

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| Design requirements | | |
| 1. | Section shall be available for access from devices such as mobile phones, tablets. | 1. The contents should be fully viewed and used from mobile phones and other mobile devices. 2. Be able to access the web menu. |
| 2. | The system shall provide a user interface that is based on user access rights. | 1. The menus shall be different depending on the access rights |
| 3. | Ability to use shortcut | 1. Ability to use keyboard shortcuts in the menus and data entry section. 2. In the registration section, It should be moved logical sequence by TAB. |
| 4. | It should have a function to ensure data integrity | 1. The system shall perform logical error testing. 2. Data validation shall be performed. |
| 5. | The system should provide system navigation instructions for first-time users. | 1. The system should perform appropriate navigation based on the user's access rights. 2. Navigation instructions should be able to watch again. |

* 1. **Performance and load capacity requirements**

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| Performance and load capacity requirements | | |
| 1 | The overall load capacity of the system | 1. The system should be able to handle its loading at least 500-1000 users accessing the system simultaneously to watch video lessons and take exams. 2. The system shall use the memory cache method. |

**4. OTHER REQUIREMENTS**

**4.1 Regulation of intellectual property**

The contract should be under the condition of developing the software anew, and the software may be used for an indefinite license without payment and its license shall be obtained and used free of charge by not infringing the exclusive rights of the work in accordance with the Mongolian laws and regulations.

If the organization updates the software, the license should be renewed as well and be used unlimitedly without any payment and license fee.

* 1. **The system warranty and user training**

1. The system warranty period shall be for 24 months effective from the issuance of the operational acceptance letter.
2. After the installation of the system, the supplier shall undertake comprehensive training for the users.
3. The period for developing the system in accordance with the customer's requirements shall be 45 calendar days from the date of contract conclusion.