

Terms of Reference Software Developer

Introduction

Effective from 24th March 2019, the Ministry of Economic Development (MED) has the responsibilities of granting employment approval for foreign workers. With the assignment of this mandate, the Ministry is in the process of reviewing existing policies, procedures and systems with a view towards improving service delivery and implementing employment approval process that is both transparent and free from corrupt practices.

To strengthen the overall mechanism to manage foreign employment approval and foreign worker's management system in the country, the Ministry has decided to revamp and implement a new quota policy, employment approval process, cancellation policy and process, and change the current deposit taking regime while simultaneously making a commitment to re-engineer and streamline the existing processes and documentary requirements to obtain foreign employment approvals.

Initial assessments of the existing XPAT system, reveals that a number of processes can be further streamlined and documents eliminated to improve the service delivery. At the same time to migrate and implement the revised policy's, substantial changes are required to the existing system. In addition, system gaps prevent MED as the service provider and regulator to track compliance of employers and to measure its service performance on a timely basis. Furthermore, some of the modules are not fully online, requiring manual data entry by staff leading to inefficiencies in services delivery while lack of in-built smart features within the system neither empower employers to monitor compliance level nor does it notify employers of outstanding obligations in relation to their sponsored employees. Feedback received from both internal and external users indicate that the system requires an overhaul to make it a smarter and user-friendly system.

Scope of work

With the overall guidance and direction from MED, the consultant is required to develop an online web-based system to automate all services related to issuance of employment approval for foreign workers. Key services identified to be developed are listed in Annex 1 of the TOR.

In developing the new ICT system, the consultant should recommend design methods to improve user friendliness, system performance and versatility of the systems developed. The consultant is also encouraged to make recommendations on improving the process flows.

In developing the IT system, the consultant shall give due consideration to the following aspects.

- Draw business or individual information from existing master databases managed by the government (e.g. BOLI software system to verify registered businesses, DNR database for individual information, business permits issues from other regulatory authorities etc.)

- Ensure that the new databases developed under this consultancy are compatible with other systems that will be integrated under the project (e.g. Pension systems data, PICES data for border entry/exit information).
- Ensure that new databases developed are structured in such a way such that it easier to manage and optimize system performance.
- In developing the IT system factor in the system gaps already identified and consult with both internal and external users, senior officials of MED to ensure systems developments are made in line with policy and legal parameters and taking into consideration the view of users.
- Design and develop the IT system in a manner that will enhance system efficiency and facilitate optimization of end users experience.
- Adhere to the following **technical requirements** for database developments.

1. The Application should be developed in Microsoft Asp.NET (C#).
2. The database should be developed on MS SQL Server and should be compatible with other systems that will be integrated under the NSW project. The platform and programming language should be clearly indicated for the web based front end of the system.
3. The database should be created via SQL scripts. These include SQL used to generate the database, schema, data types, tables, views, functions, stored procedures and any other SQL script used.
4. The system should use the NCIT E-faas system to authenticate users (both Official and Public users).
5. A fully operational database should be available upon the completion of these scripts. A demonstration of this shall be made to MFDA and relevant MED officials. Further, these SQL scripts should be well documented and easily human readable.
6. A comprehensive user manual describing the database modules contained in the solution, its features, the actions available in these features and the resulting exceptions/output for each action.
7. Test scripts/mechanisms must be provided that tests all database functions, procedures and any other code that is used in the development of modules.
8. Documentation of all functions and stored procedures; description of the parameters, return type(s), pre-conditions, assumptions, errors that could be thrown and the explanation of what the function or stored procedure actually does, must be provided. Further, all externally called stored procedures should be indicated and this will form the Application Programming Interface (API) for the database.
9. The owner of all the database source code will be solely MED. The fully documented source code shall be shared with MED as the contracting party by the consultant at all times. The source code includes all database SQL scripts.

Experience/ Skills/Qualification Requirements:

The developer should have a degree in Software development or related field with minimum of 3 years of experience and should be fluent in Microsoft ASP.NET Core C#, ASP.NET Web Forms and Microsoft SQL server environment. Having worked in similar information system projects and other programming languages will be an added advantage. The developer will work in collaboration with Ministry of Economic Development (MED) software development team to bring the required enhancements to the current system and other systems that are developed and maintained by MED.

The programmer shall, under the guidance of MED software development team, carry out the design, develop and implement the enhancements to reflect the current updates to the Ministry policy and procedural changes.

Immediate Supervisor and reporting:

On a day-to-day basis the successful candidate will report to the designated official of Ministry of Economic Development and shall report to other relevant officials in the Ministry of Economic Development as instructed by the Permanent Secretary.

Contract Duration:

12 months from the date of contract signing.

Monthly Remuneration package inclusive of all benefits: MVR 30,000.00

Working Hours – 8:00am - 4:00pm weekdays with 1 hour lunch break. The successful candidate shall be available to work in the Ministry premises during Government official working hours.

Work station: Ministry of Economic Development

Application deadline – 31st October 2019 before 12:00hrs. Send all applications in a sealed envelope addressed to Human Resource Unit of Ministry of Economic Development with CVs, copy of National ID card, copies of certificate and reference letters of any previous jobs. In the envelope, clearly label as “Software Developer”. For further information or queries write to hr@trade.gov.mv or contact 3323668 during weekdays from 8am-2pm.

Note: Only shortlisted candidates will be contacted for an interview. The shortlisted candidates will be subjected to a face to face interview and practical test.

Annex 1 – Specific outputs to be delivered

Function	Scope
1. Registration module	<ul style="list-style-type: none"> • Online registration and create user accounts using e-fass • Business entity registration and account creation (MD of a company, managing partner of a partnership, Chairperson of a Cooperative and sole trader to be given super admin rights to delegate agency or staff to act on behalf of business. • Delegation module to appoint an agency or individual to act on behalf of the Employer • User accounts for regulatory authorities which issue permits and licenses to enable access into the system to upload documentary information in the event such authorities lacks an ICT system to exchange information real time. • Integrate with BOLI system and DNR date base
2. Quota module	<ul style="list-style-type: none"> • Integrate with Pension system to establish local employment level for each employer at entity, business activity and skill category level • Online quota request by commercial and government category employers for new quota, quota increase, quota extensions and quota cancellation at entity, business activity and skill level. New quota and quota increase will be subjected to the approved quota ratios for each skill category. If the requests for new quota and quota increase exceed the system approved ratio limits, the request shall be routed to quota administrative committee for internal review and formal decision. Message shall be transmitted to Employer notifying a tentative timeline for an administrative decision. Ministry shall be able to levy an additional monthly charge if the system approved quota limit is not maintained by the Employer or the administrative decision results in the approved quota ratio exceeding the system approved limit. • Quota validity period to be flexible

	<ul style="list-style-type: none"> • Track Quota breakdowns at entity and business activity level for skilled, semi-skilled and unskilled categories. • Calculate ratio of foreign employment to local employment at business entity, business activity and skill category level • Function to enable administrative committees on quota approval to update/upload decisions on approved quota ratios for each skill/occupation categories • Function to verify whether Employer has made job announcement in the designated official job portal and verify if no locals are listed as seeking employment in the specified skill/occupation category. • Notification and search functions to monitor approved quota ratios at entity, business activity and skill category level. Employer and the designated agents shall be able to generate reports to track the status. • Industry/Occupation/Skill classification shall be based on internationally adopted classification systems. • Function to provide access to regulatory authorities to submit or upload relevant documentary evidence to approve quota
3. Domestic/Household Module	<ul style="list-style-type: none"> • Request to bring foreign workers under household category either as a maid, attendant and driver • Immediate relatives or designated caregivers able to request for attendants on behalf of sick parent or person • Functions to enable Employer/immediate relatives to request more than one attended/maid or driver. Person requesting shall be able to prove evidence of necessity and financial capability of sponsoring more than one employee for the requested domestic occupation
4. Employment Approval (EA) Module	<ul style="list-style-type: none"> • Online employment approval request by commercial, government and domestic category employers for new EA, EA extension and EA cancellation.

	<ul style="list-style-type: none"> • EA validity period to be flexible and Employers shall be notified one month prior to EA expiry. • Auto EA cancellation functions in the event Employee does not arrive country within 90 days of issuing EA • Track EA breakdowns at entity and business activity level for skilled, semi-skilled and unskilled categories. • Track EA breakdowns for domestic category for different type of occupations. • Track EA nationality, occupation, skill, industry, employer wise. • Notification and search functions to monitor approved, extended, and cancelled EAs at entity, business activity and skill category level. Employer and the designated agents shall be able to generate reports to track the status. • Function to enable Employer to update and upload passport changes • Function for employer change • Function to change designated business activity and skill category by Employer • Function to track EA issued nationality, skill, occupation and industry wise <ul style="list-style-type: none"> • Industry/Occupation/Skill classification shall be based on internationally adopted classification systems.
5. Deposit/Fines/Fee Module	<ul style="list-style-type: none"> • Deposit collection via cash, online, cheque, pos system etc. • Function to make single and multiple payments • Track deposits at Entity and business activity level • Manage all deposit records in the system • Generate reports of deposits collected through various payment methods

	<ul style="list-style-type: none"> • Deposit refund management function and possible to integrate with public bank account system to achieve account to account payment refund process • Track deposit collected and refunded at entity, business activity and skill level • Function to track deposit utilization in cases where government incur expenses to repatriate foreign worker • Fine and fee collection via, cash, online, cheque, pos system etc. • Track and generate reports of all deposit/fines and fee payments made • Notification to Employers on payments received or any outstanding dues
6. Regularization module	<ul style="list-style-type: none"> • Request for foreign worker regularization • Process request including security screening by authorities through the system
7. Missing person reporting module	<ul style="list-style-type: none"> • Report missing person by Employer • Immigration to assess the case • One case assessed decision make to either cancel EA or not
8. Blacklisting module	<ul style="list-style-type: none"> • Function to black list non-compliant Employer and Employees. •
9. Embassy module	<ul style="list-style-type: none"> • Function to give access to view nationality specific list ; viewable information, Employee details, Place of employment, validity of EA or approved EA
10. Employee module	<ul style="list-style-type: none"> • Function to give access to Employees to view Employee specific information in the XPAT system and notify them of outstanding actions
11. Dashboard and reporting module	<ul style="list-style-type: none"> • Macro level dashboard for top management • Reports to track performance status and outstanding tasks

	<ul style="list-style-type: none"> • System generated reports to Employers to track outstanding tasks, payments due etc at entity and business activity level • System generated statistical reports (20 reports – full list to be identified based on consultation) <ul style="list-style-type: none"> ○ Total foreign workers in the country, nationality occupation, skill and industry wise ○ Online accounts report- ○ Delegation authority reports - ○ Quota report – at entity, business activity, skill level ○ EA report – ○ Deposit report ○ Fees and fine report – ○ Regularization report – ○ Missing person report ○ Blacklisting report ○ Weekly application processing and receiving • Develop search and query function
12. Ad hoc support	<ul style="list-style-type: none"> • Bring other enhancements to the systems, that are maintained by MED, to reflect the current updates to the Ministry policy and procedural changes.