

Terms of Reference

Description of the assignment (Title of consultancy): Senior Software Developer

Project Title: Support to Civil Service Reform and Management capacity of Public Administration, OMSAR

Phase II

Period of assignment/services: 6 months, Until 31 December 2019.

1. Background

The serious deficiencies in the governance structures, operations, ICT infrastructure, strategic planning, human resource management and practices in the Lebanese ministries and public entities impede the development process at all levels and widens the gap between the Government of Lebanon (GoL), on one hand and the citizens, businesses and civil society on the other hand. This project aims at supporting civil service reform initiatives that are undertaken by the Office of the Minister of State for Administrative Reform (OMSAR) to modernize public sector organizations by providing them with the latest management and ICT tools to further improve their service delivery and facilitate the fulfilment of their missions. After the official announcement, on 20 March 2019, by Prime Minister Saad Hariri to launch the Lebanon Digital Economy Initiative (LDEI), OMSAR has undertaken large-scale efforts prepare and deliver various components of a Digital Transformation Initiative (DTI) in support of the LDEI. To this achieve this goal, OMSAR is seeking talented and experienced individuals to assist its current staff in formulating, planning, and executing its DTI.

2. Scope of work, responsibilities and description of the proposed analytical work

Under the direct supervision and overall guidance of the Project Manager and the Senior Digital Transformation Advisor, the Senior Software Developer will be responsible for the delivery and continuous improvement of one or more digital products. S/he will also implement platforms, toolkits and APIs for purposes such as integration, performance optimization, security and scalability. S/he will ensure high quality code is delivered in line with project goals and delivery cycles.

The Senior Software Developer will be responsible for the following functions:

- Lead a multidisciplinary team to deliver platforms, products and services and iteratively improve them through several delivery cycles
- Design and develop a common unified platform to host all digital services to be offered by the Government of Lebanon

- Migrate and combine hundreds of public sector website into a secure and robust common platform
- Develop an expert understanding of the users' needs and champion these in the delivery of digital services
- Define, explain and iterate a product's vision that is compelling to your users, team and stakeholders
- Build RESTful web services to serve a variety of citizen and government needs, taking responsibility for the quality of code you produce
- Implement toolkits and APIs for purposes such as integration, performance optimization, security and scalability
- Build automated tests to support our continuous deployment environment
- Share knowledge of tools and techniques with your wider team, both developers and non-developers
- Provide digital guidance across government, supporting recruitment, identifying good practices to adopt and sharing experiences
- Content Management System Installation, setup and configuration by performing the following tasks:

Deliverable 1: Content Management System (CMS) Installation, Setup, and Configuration

- Install Kentico website
- Setup Kentico website in IIS
- Update Kentico project to the latest Hotfix
- Set global administrator user password
- Configure global Kentico settings:
 - File storage
 - SMTP server
 - Sender email addresses for Membership, Password, Blogs, Ecommerce...
 - Payment gateways
 - Versioning & Synchronization
 - Web analytics
 - URLs and SEO
 - Web farms
 - Google Recaptcha API keys
 - Google Maps API keys
 - Scheduled tasks
 - Ecommerce store and products
- **Design, Develop, Set up, and Configure Master Website Template by performing the following tasks:**

- Create master website
 - Create design template CSS stylesheet and copy template files to server folder
 - Setup master template header for LTR and RTL
 - Create global page types
 - Create global page template category
 - Create global page templates
 - Create global home page
 - Create global hierarchical menu repeater
 - Create global Login/Signup page
 - Create global user profile page
 - Configure global roles
 - Configure global users
 - Configure global permissions and UI permissions
 - Create global contact form
 - Create custom tables
 - Configure global scheduled tasks
 - Configure local search indexes
- Fulfill any additional related function as per the request of the Project Manager and the Senior Digital Transformation Advisor

3. Expected Outputs and deliverables

To complement the accomplishment of the detailed tasks, the Consultant shall deliver the following:

Deliverables/ Outputs	Estimated Duration to Complete	Review and Approvals Required
Deliverable 1: Content Management System (CMS) Installation, Setup, and Configuration	1 month from contract signature	Project Manager and Senior Digital Transformation Advisor
Deliverable 2: Design, Develop, Set up, and Configure Master Website Template	2 months from contract signature	Project Manager and Senior Digital Transformation Advisor

Deliverables/ Outputs	Estimated Duration to Complete	Review and Approvals Required
Deliverable 3: Individual Website Development and Commissioning Websites developed and redeveloped. These websites are completed based on their complexity type (Standard, Extensive, and Complex).	Within one month. The Consultant should submit a time proposal for each type of website	Project Manager and Senior Digital Transformation Advisor

Classification of Websites

Websites are classified based on their complexity type: (a) Standard, (b) Extensive, and (c) Complex.

Standard Website

- There are 48 Standard Websites currently
- Simple layout design
- Number of pages is typically up to 30
- The architecture of the website's modules and menu is simple
- Website is either static (Html, CSS, JavaScript, and not connected to a database) or dynamic (connected to database but with straight forward architecture)
- No advanced modules/features
- The amount of the website content and/or sections is small

Extensive Website

- There are 16 Extensive Websites currently
- Moderately complex layout design
- Number of pages is typically up to 60
- The architecture of the website's modules and menu is moderately complex
- Website is dynamic (connected to one database or more but with moderately complex architecture)
- Advanced modules/features inside the website (Sign up and multi user management, search engine, data entry forms, maps, etc.)
- The amount of the website's content and/or sections is large

Complex Website

- There are 14 Complex Websites currently
- Complex layout design
- Number of pages is typically 100 and more
- The architecture of the website's modules and menu is highly complex
- Website is dynamic (connected to one database or more but with highly complex architecture)
- Highly advanced modules/features within the website (multi-user management including roles and permissions, document uploads, dynamic charts, advanced search engine, search engine optimization, data consolidation, and synchronization, and more)
- The amount of the website's content and/or sections is generally very large

NOTE: OMSAR reserves the right, based on various dynamic factors, to change priorities of the websites to be redeveloped, add new websites, combine two websites into one, or cancel existing websites. As a result, the compensation shall only be due for the actual work delivered. OMSAR may decide, at its sole discretion, to assign different types of websites to the Consultant or to others.

4. Institutional arrangements

The consultant will be supervised by the UNDP Project Manager and the Senior Digital Transformation Advisor.

5. Duration of work

6 Months

6. Duty station

OMSAR - Beirut

7. Requirements for Experience and Qualifications

I. Academic Qualifications:

- Master's Degree in Computer Science, Computer Engineering, MIS, or related field.

II. Years of Experience:

- At least 10 years of relevant experience in designing, developing, and implementing multi-tiered applications with Web and mobile client applications.

III. Technical Experience:

- Experience in the following front-end and back-end programming technologies: ASP.Net C#, PHP, HTML5, CSS, Ajax, JavaScript, jQuery, Bootstrap, Node.js, and AngularJS

- Experience in Web Forms and MVC web development models
- Experience in developing websites using Kentico CMS (Content Management System) and similar content management systems
- Experience in Microsoft SQL and MySQL Database Servers
- Experience in Reporting, Dashboards, and Data Analytics Web components like DevExpress
- Experience in Cloud Computing and Storage services like Amazon Web Services

IV. Competencies:

- Ability to manage software development projects with a passion for evolving great digital products by leading multi-disciplinary teams
- Ability to engage with users and turning user insight into product improvements
- Familiarity with a range of agile delivery techniques, tools and methods such as SCRUM
- Skilled in the following front-end and back-end programming technologies: ASP.Net C#, PHP, HTML5, CSS, Ajax, JavaScript, jQuery, Bootstrap, Node.js, and AngularJS
- Knowledge of Web Forms and MVC web development models
- Skilled in developing websites using Kentico CMS (Content Management System) and similar content management systems
- Knowledge of Microsoft SQL and MySQL Database Servers
- Skilled in Reporting, Dashboards, and Data Analytics Web components like DevExpress
- Knowledge of Cloud Computing and Storage services like Amazon Web Services
- Competency in applying software design principles
- Ability to quickly research and learn new programming tools and techniques
- Systematic approach to solving problems
- Skilled in designing automated tests to validate solutions
- Knowledge of collaborative software development on an open platform such as GitHub
- Mastering of agile environments and version control
- Understanding Web security
- Competency of technologies used for web applications, e.g. databases, backups, content delivery networks (CDNs) and search, and of Unix-like operating systems, e.g. Linux and/or Mac OS experience of working on, or with web technologies
- Strong leadership skills
- Work openly and collaboratively in a multi-disciplinary team
- Clear and strong verbal, written and visual communication skills
- Ability to prioritize workload
- Ability to work under pressure and deliver at pace

Communication

- Ability to effectively communicate intensions and requirements to internal and external stakeholders.
- Fluency in oral and written Arabic and English is required. French is a plus.

8. Scope of Price Proposal and Schedule of Payments

- Payment shall be made upon the submission and approval of each deliverable.
- For Deliverable 3, Consultant must provide a cost price for each Website based complexity type (Standard, Extensive, and Complex).

Deliverables/Outputs	Payment terms
Deliverable 1: Content Management System (CMS) Installation, Setup, and Configuration	
Deliverable 2: Design, Develop, Set up, and Configure Master Website Template	
Deliverable 3: Individual Website Development and Commissioning	
Standard	each
Extensive	each
Complex	each