MINISTRY OF DIGITAL ECONOMY AND ENTREPRENEURSHIP (MODEE)

REQUEST FOR PROPOSAL (RFP)

NATIONAL E-INVOICING SOLUTION

DATE :   18/9/2019

PROPOSAL DEADLINE: 30/10/2019

RFP NO: 1F2019

TABLE OF CONTENTS

DISCLAIMER

THIS DOCUMENT IS A REQUEST FOR PROPOSAL (RFP), AND SHALL NOT BE CONSTRUED IN WHOLE OR PART AS A DIRECT OR INDIRECT ORDER. IT SHALL NOT BE CONSTRUED AS A REQUEST OR AUTHORIZATION TO PERFORM WORK AT THE EXPENSE OF THE INCOME AND SALES TAX DEPARTMENT (ISTD). THE INFORMATION IN THIS RFP IS INTENDED TO ENABLE BIDDERS TO FORMULATE A PROPOSAL IN RESPONSE TO THE PROJECT REQUIREMENTS SET FORTH. ALTHOUGH THIS RFP CONTAINS SUCH ENABLING INFORMATION, BIDDERS MUST MAKE THEIR OWN INDEPENDENT ASSESSMENTS AND INVESTIGATIONS REGARDING THE SUBJECT MATTER OF THIS RFP. MODEE DOES NOT GUARANTEE THE ACCURACY, RELIABILITY, CORRECTNESS OR COMPLETENESS OF THE INFORMATION IN THIS RFP. THE BIDDER REMAINS RESPONSIBLE IN RELATION TO IDENTIFYING ANY FURTHER INFORMATION THAT IS REQUIRED TO PREPARE THE PROPOSAL. THIS RFP SHALL CONSTITUTE PART OF THE CONTRACT THAT WILL BE SIGNED BETWEEN ISTD AND THE WINNING BIDDER.

1. INTRODUCTION

1.1   RFP Organization

This RFP provides the information to enable bidders to submit written proposals for the sought solution. The organization of the RFP is as follows:

Section 1: Introduction

> This section outlines the RFP's purpose and its organization.

Section 2: Project Definition and Description

> This section provides general definition of the project scope and a high level description of the solution to be implemented,

Section 3: Scope of the Project

> This section defines scope of work, proposal requirements and deliverables for the Project.

Section 4: Administrative Procedures and Requirements

> This section describes the administrative rules and procedures that guide the proposal and its processes.

Section 5: Annexes

> This section includes all annexes to the RFP.

1.2   RFP Purpose

Ministry of Digital Economy and Entrepreneurship (MoDEE) is soliciting proposals from qualified bidders as described in section 4.1 To provide Income & Sales Tax Department (ISTD) with a specialized E-solution in invoicing and to collect data and manage information of sales processes from sellers/ buyers or any third party, herein after referred to as the Project.

Income and Sales Tax Department (ISTD) is going to implement a national e-Invoicing solution. ISTD is considering requiring sellers and buyers to use electronic invoices (e-Invoices) and submit those e-Invoices to the ISTD.

Types of transactions that need to be considered:
- Business-to-Business (B2B)
- Business-to-Government (B2G)
- Business-to-Consumer (B2C)

The volume of transactions and the way they are handled by sellers and buyers) are different; therefore, they should be processed differently.

The proposed solution will benefit as the following:
- It will help prevent fraud and detect tax evaders.
- By eliminating the need to print invoices and deliver them to buyers; it would make the process more efficient and less costly for business-to-business transactions.
- Proposed solution should provide different access channels such as mobile apps and web platform.

The winning bidder will be responsible for successful delivery of the project within specified timeframe and must follow agreed tasks and achieve desired goals and requirements so that the project is managed efficiently and effectively.

Responses to this Request for Proposal (RFP) must conform to the procedures, format and content requirements outlined in this document. Deviation may be grounds for disqualification.

2. PROJECT DEFINITION AND DESCRIPTION

2.1 current Situation

ISTD does not have an E-invoicing solution that handles invoices issued by sellers of commodities or services. As of 1st of July 2019, invoicing bylaw No. 34 of 2019 has become effective and sellers of goods and / or service have been obliged to issue an invoice for the sale.

There are sellers who have their own invoicing systems that are not tied to the department. As a result of the activation of the invoicing bylaw, we found that there is a large proportion of those who do not have their own invoicing systems. There is another category of sellers who manage their business, especially with regard to invoicing through the purchase of services or systems dealing with third party invoicing.

2.2 Legal Framework

This RFP document is being issued in response to the new invoicing provision of the tax law 38/2018 and bylaw of organizing & controlling invoicing 34/ 2019, please refer to **(Annex 5.1)**.

2.3 Usage Statistics

Usage Types	Number
Income Tax Registered persons	1343123
Sales Tax Registered entities	34506
Expected number of invoice issuer	356000
Expected Daily invoice issued per invoice issuer	50
Total expected number of invoices daily	17,800,000
ISTD Users	1000
Invoicing Increasing percentage yearly	5%

2.4 General Definitions

- **Good /commodity**: any natural material or animal, agricultural or industrial product including electricity power.

- **Service:** any activity done by the person for a fee, including the provision of a benefit to others. This work does not include the supply of a good unless this commodity is required to provide this service.

- **Seller**: the person who sells good, commodity, service.

- **Invoice:** a statement issued by seller describes the good, service or commodity and quantity, price, tax calculated.

- **Commodity selling**: The transfer of the ownership of the commodity from the seller to the buyer for a fee or without, or use of the commodity by the person for his own purposes or the empowerment of third parties for a price or for free or disposition of any of the legal acts conveying ownership.

- **Service selling**: Perform, deliver or provide the Service from Seller to Buyer for a fee.

2.5 System Features & Requirement

The projects aims to build an E-Invoicing Solution based on industry best practices, information security and Business continuity should be taken into consideration in the proposed system architecture. The proposed solution should be hosted on the Government Private Cloud (GPC) **(Annex 5.2)**.

In the following sub-sections, the requirements and features of the E-Invoicing Solution are explained as follows:

2.5.1 Description of System Features & Requirement

System requirements	Description
User Profile	The system should support user profile management and the ability to update the user profile information. User transactions applications, submission, saving for later completion and status tracking.
Authentication	Two parts will constitute the authentication module: • First authentication module is related to the "Sellers" and "Buyers" which needs to be built and developed, and meets the requirements generated from the proposed solution. The winning bidder is obliged to describe, design in details and implement the system's users authentication mechanism with ISTD along with information security measures in order to guarantee information confidentiality, integrity, availability and accountability (non-repudiation) to meet the security level sufficient to guarantee service delivery. • Second authentication module is related to the administration part of the solution that should be integrated with the ISTD LDAP to allow ISTD employees to access the system with a predefined roles and responsibilities.
Printing	Winning Bidder should provide printing module to print bills, receipts, reports when required and any other needed documents.

Solution Complaint	The winning bidder should store and integrate with National Contact Center (NCC) for all raised complaints regarding the proposed e-Invoicing solution along with status tracking so that ISTD eligible employees can access and check the tickets information, status and history.
	The winning bidder shall integrate the system with the National Contact Center through the Government Service Bus (GSB). Accordingly, enabling the agents to access the entity's related applications for retrieving information, tracking the status of a service.
	Please refer to (Annex 5.3) for more information about the Contact Center requirements.
Notification	The system will send notification(s) according to the progress of the requests, the supported notification delivery methods includes and not limited to:
	1. E-Mail
	2. SMS
	3. Push notifications on the solution portal and mobile app.
	Any other channel that will improve service delivery.
Reporting and Dashboard	The system should provide dashboard for statistical information and generate analytical reports and provide live dashboard information on our specified business KPIs.
Inquiries Module	The system should have advance search and filtration option so it will facilitate retrieving the required data.
System integration	The system should integrate with the following shared e-Government services:
	1. *e-Government Government Service bus (GSB):* The winning bidder shall integrate the proposed system with GSB through supporting web services and message communication using XML format and SOAP messaging protocol (Please refer to (Annex 5.11) for integration guidelines and SDK). More details will be provided upon awarding to winning bidder.
	2. *National e-Government Contact Center (NCC):* The winning bidder shall integrate the system with the National Contact Center through the Government Service Bus (GSB). Accordingly, enabling the agents to access the entity's related applications for retrieving information, tracking the status of a service. Please refer to (Annex 5.3) for more information about the Contact Center requirements

	3. *SMS Gateway:* Winning bidder shall utilize current SMS gateway provided by the e-Government. **Stakeholders Integration:** The system shall integrate with the stakeholders systems involved in the e-Invoicing solution through GSB. The winning bidder shall gather all solution related integration points requirements during business requirements gathering and analysis phase. However, the below list includes the main stakeholders of the system: 1. MIT 2. CCD 3. Customs 4. DVLD 5. CSPD 6. DoBR **7.** ISTD - Tax Administration System
Sellers Integration	The proposed system must provide a technique or gateway for the sellers to be able to provide their invoices data to the system in automated process.
Report Builder	The system should have the ability to create dynamic report and save the result as template so it can be reused later. Main functionality that can be provided are : - Dynamic column define (at runtime). - Create Group Report - Dynamic Layout - Inherited report design - Sub Report - Calculation Variables - Exporting data to multiple format - Add Chart and Images - Connect to different Data Sources - Matrix Report - Form Report
System administration	The system shall contain administration module, to enable administrators to perform all day-to-day administrative tasks at data, automation engine, and application levels. The winning bidder shall gather all solution related administration requirements during business requirements gathering and analysis phase.
User Access Management and Role based security	System should allow admin to perform the following tasks but not limited as follow: - Manage User Access Permissions. - Granting / preventing users to use system facilities - Support role based authentication - Manage User Group

	The system should support role based authentication, authorization and access control list. Role based security should be applied at all solution layers.
Performance	The system should meet efficiency targets to serve volumes of transactions described in Usage Statistics section and number of users. Please find the performance measures defined below. *System reaction time:* The time taken for logging into a system. [Up to 5 seconds]. *Response time:* The time the system takes to respond to specific query by the user. [Up to 4 seconds]. *Capacity:* The capability of the newer system to handle a number of simultaneous requests from the network for the application and the volume of data that it can handle from each of the users. In addition to the H/W capacity such as processing capability of all servers including DB, Apps. [CPU Utilization: 70%, Memory Utilization: 70%]. *Utilization*: The system minimum availability time vs. the system down time [99.9].
Monitoring	The system should include performance monitoring for all transactions.
Information Security	Security of system and exchanged transaction information should be guaranteed at all system layers Based on ISO 27001, WS-Security standards including infrastructure, application, web services and integration points, and access channels. This also includes using detective and preventive controls for all security threats and approval by ISTD and MoDEE.
Supported web browser	In the cases where any parts of the user interface solution were developed web forms, those forms should support latest versions of the most popular browsers. According to the W3C standards.
Language	The system shall be bilingual (support Arabic and English)
User interface and Help	The system shall provide a user friendly interface along with on-line help (in both languages) for user guidance while applying for different services transactions (through messages, wizard …etc.)
Audit, Logging and Data Versioning	System should Keep track of who login and in what time and what action he did. The tracking system should help getting such information: - Timestamp of creation/modification - User last changed and date last changed - Changed record and last operation (Create, Update, and Delete). - Before and after value for each column that has changed. - Keep Track of what user retrieve or view (Select) Auditing and data versioning features should be configurable based on administrator selection to specify which system resources needs to audit and track changes.
Mobile Application	Winning bidder is required to expose all services (including service

	functionalities) within this scope of work through web-Services & APIs so it can be consumed to build Mobile Applications delivering all e-Services bearing in mind that these web-services and APIs will be consumed by mobile apps.
Archiving	In cases where information that support the submitted application in a hardware format, it is required those attachment to be scanned and captured and linked to the application number in order to be accessed and retrieved for verification.
Online / Offline	The system must enable the user to transfer data to the ISTD through the Internet permanently and simultaneously. In case of unavailability of the Internet, the system must support an alternative and safe way to save the data and send it later if the Internet service is returned, taking into account the conditions and mechanisms specified in the relevant regulations and legislations.
Item and service categorization & localization	A classification of services shall be made according to international classifications. The tax shall be calculated for services according to the schedules specified and approved by ISTD; classification and designation of goods according to tariff schedules approved by the responsible government entities. The system provides detailed lists of goods and services within major categories and branches to calculate the special tax (goods or services) according to the tables approved by the ISTD and to facilitate the process of issuing reports.
Invoice format	• The system shall issue invoices in Universal Business Language (UBL) standard and converts any other invoice into this format. • The system should has capability to link scanned/captured invoices images with the "Sellers\Buyers" information. Optional Feature: The solution should be able to scan/capture paper invoices, identifies their data and details, and converts them into UBL.
Application Programming Interface (API) readiness	The proposed solution must provide APIs for all functionalities, so that it provides the capability to be consumed by any access channel (such as but not limited to: Mobile Apps, Web portals, etc…) when required.
Integration	• The technical readiness and the possibility of invoicing system to be integrated with any systems necessary to maintain its work and / or provide data for the invoice according to the legislation in force and to meet the public interest and the purpose of the system. • The proposed system should be able to integrate with the invoices issuers' "Sellers" current systems. • The proposed system should be able to integrate with the third party (system provider), which provides service to invoices issuers that do not have their own invoicing system. • The system allows invoices issuers to transfer data over mobile applications and through web browsers. • The bidder must provide a web portal specified for invoicing services in addition of being a main BUS.

	• All integrations with government entities should be done through GSB service see (Annex 5.11).
Loyalty system	The proposed e-Invoicing solution should provide system for user loyalty (seller and buyer) to increase the commitment and enhance the culture of invoicing through rewards program or points or other methods.
Big data	The proposed e-Invoicing solution should be supported with a Big Data solution that can deal, manipulate, and provide deeply insights of the massive amount of e-invoicing different type of data. In addition, it should support business intelligence capabilities.
QR Code	The system should generate QR codes that includes a link to the seller and/or generated invoice with a minimal related text description.
Backup Solution	A dedicated backup solution must be provided, installed and configured by the winning bidder to serve as a backup solution for the proposed e-Invoicing solution.
DAMP (Database activity monitoring and Protection)	Proposed solution should have a database Real-time protection and security technology for auditing, monitoring and analyzing database activities.

2.5.2   Functional Requirements

Feature Description	Comply (Yes/No)	Reference in the Technical Proposal / Approach
Ability to verify that the Invoices data are correct through the automated verification.		
Facility to interact with seller & buyer in order to correct the e-Invoice through credit and debit notes.		
Built-in and provide data analysis solutions that can detect anomalies.		
Ability to differentiate between multiple invoices transaction.		
Ability to handle real time submission of individual invoices as well as batched submission of multiple invoices.		
Ability to generate one accumulated daily invoice for the Sellers (per branch) who has approval for such procedure.		
Ability to handle international transactions.		
Ability to verify paid tax- invoices & provide the service of refunding the (foreigners/ tourists) with paid tax.		

Feature Description	Comply	(Yes/No)	Reference in the Technical Proposal / Approach
Optionally, system has the ability to generate or verify GST/SST returns based on the information received.			

2.5.3 Non Functional Requirements

Feature Description	Comply (Yes/No)	Reference in the Technical Proposal / Approach
Flexibility to modify on the system according to legislations amendments.		
Ability to categorize goods depending on sales tax percentage.		
Ability to deal with international barcode standards of goods, if not exist the system should has ability to create such standard barcode.		
Ensure that Invoices are authentic through an authentication method.		
Facility for buyers to verify that invoices have been received and have gone through automated verification by ISTD.		
Proposed solution should be centralized and hosted at government cloud.		
Proposed solution should be friendly and easy to use. For the user experience compliance see (Annex 5.4)		
Availability & continuity; it must be guaranteed 24/7.		

2.5.4 Users

The registration mechanism includes 2-step authentication, through which mechanisms such as e-mail, user's phone number, Token or other verification mechanisms are used.

Provide a database for users of the system including the user name and password or any other methods to ensure access to the system in a safe manner, in addition to the use of modern security algorithms and mechanisms to ensure the user identity and the mechanism of registration in the system and through all windows of the system (portal, mobile application, desktop, other..).

Providing roles and authorities for users of the system to ensure the functioning of the system as required and regulate the powers of work for all categories (system administrators, seller, buyer, broker ...) through the latest technological methods available.

The authorities delegated to system administrators provide many authorities, according to the nature of its work and at various levels.

The authorizations granted to the seller provide the use of free services for the system in addition to inquiring or viewing the data uploaded.

The authorities of the buyer shall have access to his file which includes the invoices, their values and details, and during any time periods required, in addition to using the free services.

The buyer authorities shall have access to files of his own or as agreed upon.

System administration includes the following operations: add account, delete, modify, authenticate (connect to user), grant and revoke permissions, change password, log transactions associated with account.

2.5.5 Issuing Invoices

The system should provide all invoices issuing and modification processes including (add, delete, modify, scan, print, etc.). The system should also enable users to attach or upload files.

The system should provide the ability of modifying the invoices and their forms according to the legislations and regulations in force.

The system should provide the ability of dealing with the leases as invoices.

The system checks the identity of invoices issuer through a registered account or any method that ensures identification of the user to read the invoice data through the digital certificates and/ or using the technique (QR).

The system also provides the mechanism that allows the buyer to verify the validity of all invoices for his purchases and a mechanism dedicated to the approval of the parties on invoices that exceeds specific amount of money.

Invoice must contain buyer name in case of postponed payments sell.

The system should provide the ability of invoices amendment after issuance or after the transfer to ISTD so that the old invoice is not deleted but shows the modification made and the adjustments to the invoices and who made the amendment.

The system must serve the user through the ability to enter all kind of invoices, whether local or international with a statement of their types and details.

The system provides a mechanism to exclude the concerned parties to issue invoices according to regulations and instructions.

The system adopts sales tax number or the national number if it's not exists.

The system must provide the ability to deal with all types of invoices (paper, electronic, computerized).

Invoice form should contains the following (serial number of the invoice, full name and address of the seller, seller's tax number or national number, date of issuing the invoice, buyer name (if invoice amount > 10,000 JD or postponed invoice), item or service description, quantity, prices, and Tax amount\percent).

The system should have the ability of identifying goods or services as categories according to the tax rate imposed with the possibility of linking these categories with the categories specified globally

3. SCOPE OF THE PROJECT

Important notes:

- There are certain activities to be performed and deliverables to be provided by the winning bidder during execution of the Project. More detailed information on each of them is given in the next paragraphs. The bidder shall provide the solution, knowledge transfer, training, support, maintenance and warranty, including any requirements or activities needed for the proper functioning of the system beside those outlined in the following listing and the cost of these requirements or activities should be included in the fixed lump sum price submitted by the bidder. Note that the bidders should detail in their proposals all recommended mechanisms and methodologies through which its services and deliverables will be accomplished. All the final documentation deliverables of the project are required to be prepared in English. The sign off and approval will be given on both Arabic and English language deliverables for the deliverables that are required bilingual. In case the documents differed due to translation, the Arabic documents shall prevail and will be considered as the official ones.

- For the purpose of the completion of this project, some of the activities must be implemented and certified and approved by the Solution Vender, these will be explicitly mentioned in the scope of work of this RFP as Vender Activities and Winning Bidder Activities respectively.

- Final deliverables submitted by the winning bidder should be attached to an original official letter properly bounded, stamped and signed by the winning bidder as shall be defined and approved by ISTD.

- Proposals submitted by bidders that do not properly describe an acceptable solution for the whole solution components delivery shall be rejected for being not responsive to the RFP requirements

- The required solution shall be deployed and configured at E-Government Operation Center at National Information Technology Center (NITC) on the Government Private Cloud (GPC).

- The duration time for this project is (365) calendar days in addition to the 36 months for maintenance and support time.

3.1 Component 1 – System Design, Installation and Configuration

Winning bidder activities

In order to develop and launch this solution and mobile App, the solution vender is required to perform the activities mentioned below, noting that any additional related activities needed for the proper functioning of the system should be provided by the winning bidder and its cost should be included in the fixed lump sum price submitted by the bidder:

- **System Implementation**
  - Perform requirements gathering and analysis for solution processes related to the delivery of the solution keeping in mind implementation of worldwide best practices
  - Perform requirements gathering and analysis for solution stakeholders keeping in mind implementation of worldwide best practices.
  - Develop needed policies, procedures and internal controls embedded in these policies and procedures to govern the solution.
  - Provide a detailed requirements specifications document showing Integration with both ISTD back-end system(s) and stakeholders.
  - Provide a detailed functional design document together with detailed functional, non-functional and technical specifications of the proposed solution , use cases and use case diagrams considering the integration with all e-government shared services and the required access and delivery channels
  - Develop a prototype for the proposed system including user interfaces that can be integrated with the e-government shared services
  - Design, develop, implement, deploy (install, test, launch) and rollout of the proposed solution. This needs to be aligned with the e-Government Architecture Framework (including but not limited to the use of shared components and services like the SMS Gateway, e-Government Contact Center, and Government Service Bus (GSB).
  - Develop on-line help for the solution through which users can inquire (via web) or any other access channel provided by the e-Government contact center.
  - Design and build required interfaces for the various shared e-government infrastructure components and integration with stakeholders through GSB
  - Develop and conduct the User Acceptance Test (UAT) in collaboration of ISTD and Stakeholders' teams.
  - Ensure high level of security for production environment layer.
  - Prepare all needed documentation that shall enable ISTD to take over the operational part for the proposed solution smoothly, this shall include the Operation manual for the managing the major functionalities of the proposed solution, in addition to System administration manual.

Technical Proposal Requirements

The bidder is required to provide the following information in the technical proposal in relation to the System delivery:

- **System Implementation**

- Provide a high level design of the solution, describing system architecture, functions and interactions of all the components
- Describe solutions to meet requirement of multi-channel access and delivery of the proposed solution (the winning bidder will be provided with the relevant documentation describing the integration with the available access and delivery channels)
- Describe approach to developing the prototype of the system
- Describe approach and methodology for integrating the solution with shared e-government infrastructure and integration with stakeholders through GSB
- Describe approach of launching and rolling out the solution.
- Provide a list of deliverables for the System Implementation.
- Describe bidder's qualifications in e-Invoicing Implementation

- ***System Documentation***
    - Describe bidder's qualifications in System Documentation development

Financial Proposal Requirements

The bidder is required to provide the following information in the financial proposal in relation to the System Delivery:

- List all cost associated with the hardware equipment's and software licenses included in the proposed technical solution
- List all costs associate with the activities mentioned above

Deliverables

The winning bidder is required to provide the deliverables mentioned below, noting that any other related deliverables needed for the proper functioning of the system should be also provided by the winning bidder and its cost should be included in the fixed lump sum price submitted by the bidder:

- ***System Implementation***
    - Requirements Analysis Document
    - Detailed requirements specifications document
    - Detailed functional, non-functional design, and technical specifications of the system
    - System prototype
    - Implemented overall system delivery including relevant interfaces, data migration (if needed), and web services necessary for integration with all related internal and external systems and stakeholders.
    - On-line help for the solution in Arabic language
    - Detailed documented approach and implementation for the integration with the shared e-government infrastructure and integration with stakeholders through GSB.

- ***System Documentation***
    - System technical documentation (covering use cases and use case diagrams, detailed requirements, architecture, data model, algorithms, protocols, functionality of modules, quality-related documentation and artifacts, etc.)

- System manuals (covering software and hardware installation and configuration, maintenance, backup, recovery, optimization etc.)
- End-user manuals (including and not limited to FAQ, "How do I" questions; in Arabic & English).
- Detailed User Acceptance Test (UAT) Document and UAT test result report based on Winning Bidder execution of those tests.

3.2 Component 2 – Required Solution Infrastructure

There are two options for hosting the proposed solution:

Hosting Option 1: Host the solution on the Government Private Cloud (GPC)

Hosting Option 2: Host the solution on Public Cloud

Both options must be included in the bidder's proposals separately in the technical and the financial offers.

Hosting Option 1: Host the solution on the Government Private Cloud (GPC)

Winning bidder activities

The winning bidder is required to perform the activities mentioned below regarding solution Infrastructure, in addition to the required backup solution that should also be hosted on the GPC:

1. The bidder must provide solution hosted on Government private cloud (GPC) and fully integrated with Hyper-V.

2. Bidders has 2 options regarding operating systems:

   o Option 1: Bidder can utilize windows server 2012 R2 and 2016, which are provided by GPC

   o Option 2: in case the proposed solution requires any OS other than OS mentioned in option 1, bidder responsibility is to provide, configure and license the required OS

3. The bidder has three options regarding Database:

   o **Option 1:** The bidder can provide and use My SQL database on GPC. Then the bidder should deploy, configure and license these DB servers**. The cost of needed licenses and any other related cost should be included in the financial proposal**

   o **Option 2:** The bidder can provide and use Microsoft SQL server database GPC. Then the bidder should deploy, configure and license these DB servers. **The cost of needed licenses and any other related cost should be included in the financial proposal**

   o **Option 3:** The bidder can provide and use Oracle on government oracle private cloud based on **EXADATA**. Then the bidder should deploy, configure and license these DB servers. **The cost of needed licenses and any other related cost should be included in the financial proposal**

   o **Option 4:** The bidder can provide and use any other database that is compatible with GPC or government oracle private cloud, then bidder should deploy, configure and license these DB servers. **The cost of needed licenses and any other related cost should be included in the financial proposal**

4. The bidder responsibility must provide sizing (VM's specifications) for Infrastructure requirement on GPC.

5. The Bidder must describe the functionality for each VM or Database needed for the solution.

6. The Bidder must provide the logical Infrastructure architecture for the solution.

Technical proposal requirements

The bidder is required to provide the following information in the technical proposal in relation to the required infrastructure:

1. Proposed Logical Infrastructure Architecture showing all needed components
2. Proposed OS option that will fulfill project's needs and requirements
3. Proposed Database option that will fulfill project's needs and requirements
4. Required sizing and VM's specifications
5. VMs & DBs functionality needed for the solution

Note: If during implementation found that the infrastructure component described in the technical proposal submitted by the winning bidder does not fulfill the requirement of the scope of this project, then the winning bidder must provide all additional needed infrastructure components and the cost of all of these additional components will borne by the winning bidder

Financial proposal requirements

The bidder is required to provide list of all costs associated with the required infrastructure of the System in the financial proposal.

Note: the financial proposal shall list all cost's associated with all licenses required to provide the proposed solution as listed in the technical proposal regardless of whether these licenses are covered under the framework agreements with the government of Jordan or not and shall be included in total project lump sum price.

Deliverables

The winning bidder is required to provide the deliverables mentioned below:

1. Comprehensive Logical Infrastructure Architecture
2. Sizing & VMs Specification Document
3. VMs & DBs Functionality (detailing the solution components)
4. Required Licenses for the proposed e-Invoicing and backup solutions (if required)

Hosting Option 2: Host the solution on Public Cloud

Winning bidder Activities AND Technical proposal requirements

The bidder must provide the following details in case of hosting the solution on Public Cloud:
1. The public cloud provider
2. The base technology of the public cloud
3. The location of the public cloud infrastructure
4. Location of the public cloud DR infrastructure
5. A detailed licensing\subscription model of both public cloud and the solution
6. Security measures taken, and if it is possible to do a 3rd party penetration testing on the hosted solution
7. How we can manage the hosted data, in terms of access, monitoring, delegation for authorities, etc.
8. Logical Infrastructure architecture for the solution and how it will be hosted
9. Provide the service level agreement with the public cloud provider.

10. Exit policy details

Note: If during implementation found that the components described in the technical proposal submitted by the winning bidder does not fulfill the requirement of the scope of this project, then the winning bidder must provide all additional needed components and the cost of all of these additional components will borne by the winning bidder

Financial proposal requirements

The bidder is required to provide list of all costs associated with the required infrastructure of the System in the financial proposal.

Note: the financial proposal shall list all cost's associated with all licenses required to provide the proposed solution as listed in the technical proposal regardless of whether these licenses are covered under the framework agreements with the government of Jordan or not and shall be included in total project lump sum price.

Deliverables

The winning bidder is required to provide the deliverables mentioned below:

1. Comprehensive Logical Infrastructure Architecture detailing the solution components

2. Required Licenses for the proposed e-Invoicing solution

3.3 Component 3 – Solution Security Requirements

Winning bidder activities

The winning bidder is required to perform the activities mentioned below to ensure System security:

- Develop a detailed backup policy and related procedures encompassing handling the proposed solution and security controls. i.e. backup policy and procedures, auditing policy, etc., and in compliance with ISO 27001 standard. The policy and procedures should consider the operational environment of ISTD.

- Assess security risks implied in implementation of the proposed solution and in integration, if any, with legacy system. And recommend and include controls to mitigate them.

- Conduct risk assessment by identify security threats and risks to the developed system, and identify the controls applied by the developing bidder and the suggested controls.

- Appropriately assess, implement, test and deploy information security controls and measures to secure the System considering the following:

    o Controls to enforce separation of duties depending on Need-to-Know and Need-to-Do.

    o Controls to ensure input validation, data processing and output integrity and confidentiality.

    o Controls to ensure secure data at rest, in use and in transit, including encryption and hashing algorithms and encryption keys management.

    o Controls to ensure secure messaging according to the WS-Security Standard.

    o Controls to secure transactions and messaging among all stakeholders and solution components.

    o Controls to ensure user privacy, including but not limited to, cookies management, users log file and behavior.

    o Controls to ensure secure exception and error management that is both user-friendly and not revealing sensitive and structure data.

- Design and build secure connections and communication channels to ensure:

    o Secure connections between clients and the System.

    o Secure connections between the System and back-end systems (if any).

    o Communication channels should be secured as per WS-Security specifications.

    o Internet access should use encrypted communication channels.

- Provide and deploy security applications/solutions to secure the communication channel for front-end and back-end systems.

- Design and build secure user identification and authentication approach.

- Ensure that Portlets are protected against web application threats, such as dangerous URL and attacks such as cross-site scripting, Session Hijacking. The solution should ensure that it is not vulnerable to common vulnerabilities and latest OWASP Top 10 vulnerabilities.

- Ensure that the final solution include comprehensive audit and log management and reporting tools for all transactions, especially security logs, based on need-to-know and need-to-do basis and having the following criteria:

- o Audit and logging, comply with ISO 27001 and contain but not limited to:
    - Input validation failures e.g. protocol violations, unacceptable encodings, invalid parameter names and values
    - Authentication successes and failures
    - Authorization (access control) failures
    - Session management failures e.g. cookie session identification value modification
    - Application errors and system events e.g. syntax and runtime errors, connectivity problems, performance issues, file system errors, file upload virus detection, configuration changes
    - Application and related systems start-ups and shut-downs, and logging initialization (starting, stopping or pausing)
    - Use of higher-risk functionality e.g. addition or deletion of users, changes to privileges, assigning users to tokens, adding or deleting tokens, use of systems administrative privileges, access by application administrators, all actions by users with administrative privileges, access to payment cardholder data, use of data encrypting keys, key changes, creation and deletion of system-level objects, data import and export including screen-based reports, submission of user-generated content - especially file uploads
    - Modifications to configuration
    - Application code file and/or memory changes

- Audit record should contain the:

    - When: time of event, time of log,
    - Where: application/web service identifier, Window/form/page e.g. entry point URL and HTTP method for a web application, code location.
    - Who: source address and user ID.
    - What: type, severity and description of the event, object.
    - HTTP Status Code (web service only) - the status code returned to the user (often 200 or 301)
    - Request HTTP headers or HTTP User Agent (web service only)
    - Log throttling should be used.
- Sensitive data is to be excluded from logs. See "National Security Policy
- Build security controls in the proposed service/application against Level 1 and Level 2 controls of OWAS Application Security Verification Standard V4.0 (2019)
- Verify the implementation of all the required OWAS ASVS controls.

NOTE: ISTD reserves the right to perform their own vulnerability assessment and/or penetration test on the solution and provide the vulnerability reports to the winning bidder to apply appropriate recommendations to ensure system security. Another security test should be conducted to ensure recommendations are reflected

Technical proposal requirements

The bidder is required to provide the following information in the technical proposal in relation to the Information Security:

- Risk Assessment plan or methodology.

- List of policies to be developed.

- Proposed security design of controls to be applied within the design in all layers: network security, host security, application security, data security, and access management, if any.

- Proposed approach(s) to ensure confidentiality, integrity, availability, authenticity, auditing, non-repudiation and accountability of data and services usage for the solution.

- Proposed approach(s) to ensure security for the following requirements:

  o Separation of duties depending on Need-to-Know and Need-to-Do.

  o Input validation, data processing and output integrity and confidentiality.

  o Secure data at rest, in use and in transit, including encryption and hashing algorithms and encryption keys management.

  o Secure messaging according to the WS-Security Standard.

  o Secure transactions and messaging among all stakeholders and solution components.

  o Ensure secure identification, authentication and user profile management.

  o Ensure user privacy, including but not limited to, cookies management, users log file and behavior.

  o Ensure secure exception and error management that is both user-friendly and not revealing sensitive and structure data.

- Proposed design for secure connections between clients and the System.

- Proposed design for secure connections between the System and back-end systems.

- Proposed solution for encrypting internet communication channels.

- Proposed secure user identification and authentication approach.

- Proposed design to protect Portlets against web application threats. The solution should ensure that it is not vulnerable to OWASP Top 10 latest vulnerabilities. I.e. design to secure session management; security control such as session time out and secure channel and access to session store should be used.

Financial proposal requirements

The bidder is required to provide list of all costs associated with the information security of the System in the financial proposal.

Deliverables

The winning bidder is required to provide the deliverables mentioned below:

- Detailed security policy and related procedures encompassing handling the proposed solution and security controls. i.e. backup policy and procedures, auditing policy, etc., Risk assessment and mitigation document.

- Security design of controls appropriately implemented and tested information security controls and measures to secure the target solution Separation of duties depending on Need-to-Know and Need-to-Do.

- Input validation, data processing and output integrity and confidentiality.

- Secure data at rest, in use and in transit, including encryption and hashing algorithms and encryption keys management.

- Secure messaging according to the WS-Security Standard.

- Secure transactions and messaging among all stakeholders and solution components.

- Ensure secure identification, authentication and user profile management.

- Ensure user privacy, including but not limited to, cookies management, users log file and behavior.

- Ensure secure exception and error management that is both user-friendly and not revealing sensitive and structure data.

- Appropriately designed and built secure connections between clients and the System.

- Appropriately designed and built secure connections between the System and back-end systems.

- Appropriately configured and secured user identification and registration.

- Security Test Results clarifying the elimination of the System from dangerous URL and attacks such as cross-site scripting, Session hijacking. And it is not vulnerable to latest OWASP Top 10 vulnerabilities.

- Audit and log management and reporting tools for all transactions, especially security logs based on need-to-know and need-to-do basis.

- Verification check list against all the applied controls of the required in OWASP Application Security Verification Standard V4.0 (2019) Level 1 and 2.

3.4 Component 4 – Change Management, Training and Knowledge Transfer

Winning bidder activities

In order to provide Change Management, Awareness, knowledge transfer and Training, the winning bidder is required to perform the activities mentioned below noting that the winning bidder should suggest the background and technical profile of the nominated trainees,

- Develop and execute awareness sessions plan in accordance to the current situation and execute awareness sessions for identified entities, employees in involved entities and any other identified stakeholders.
- Develop and execute training plan and knowledge transfer for identified team Training shall be arranged at various phases of the project.
- Training venue and all needed PCs and equipment for training purposes must be provided by the winning bidder.
- Number of trainees as follows:
    - NCC personnel (6).
    - Training of Trainers (ToT) for all types of end users (20)
    - System Administrators (12)
    - Security Training (10)
- Train ISTD team on the major components of the installed solution, this shall include the following knowledge areas beside any tailored training that is related to the solution components:
    1. System Administration
    2. System Monitoring
    3. Data management
    4. Reports and dashboards

- Knowledge Transfer: Transferring knowledge ISTD team for the following subjects:
    1. System Installation
    2. System Operation and Troubleshooting
    3. System Backup and Restore
    4. System Failure and Recovery Procedures

Technical proposal requirements

- Describe approach, including tools for knowledge transfer, awareness sessions and training
- Describe and list the proposed training sessions, session duration, and number of attendees per session
- Provide a high level training schedule showing the training activities
- Provide Awareness sessions plan.
- Provide a list of deliverables for the Knowledge Transfer, and Training
- Describe bidder's qualifications in training including references and resumes' of trainers.

Financial Proposal Requirements

- List all cost associated with the above activities under the Training and Knowledge Transfer Component

Deliverables

The winning bidder is required to provide the deliverables mentioned below, and any other related deliverables needed for the proper Knowledge Transfer, and training and its cost shall be included in the fixed lump sum price submitted by the bidder:

- Training needs assessment report, knowledge transfer plan and awareness session plan.
- Knowledge transfer, and training sessions schedule and curricula
- Executed Knowledge Transfer and training sessions for all nominated trainees
- Provided training handout material.
- Executed awareness sessions for all involved entities.

3.5 Component 5 – Operations, Maintenance and Support

Winning bidder activities

In order to execute "Operations Support and Maintenance" component of this project, the winning bidder is required to provide all needed maintenance and support (including licenses) <u>for 36 months after obtaining the preliminary acceptance (Preliminary acceptance starts after accepting the proposed solution by ISTD and before the support and maintenance period)</u>, noting that any additional related activities needed for the proper functioning of the system should be provided by the winning bidder and its cost should be included in the fixed lump sum price submitted by the winning bidder:

- Assign a contact person / account manager to be responsible during the support and maintenance period of this contract.

- Provide support and maintenance services on 24x7 basis for the implemented solution by a team which possesses the proper knowledge and proven experience of the proposed solution.

- Ensure the availability of educated resources to provide on-site support when needed

- Provide detailed implementation plan for any pre-planned maintenance operation that may affect ISTD services availability, functionality or stability, with necessity to provide roll-back plan before commencing with maintenance operation

- Issue a service report after each and every site visit registering the reported incident, its root cause and the followed procedures for issue(s) successful resolution including the taken and/or suggested recommendations and measures that shall prevent such incidents / issues from reoccurring in the future.

- Renewal of the licenses for the software products (required for the covering and completion of the scope of work in this RFP) should be for duration of 36 months starting from the date of preliminary acceptance.

- Comply with the service level requirements defined by ISTD and as shown in **(Annex 5.5)** of this document.

- Assign a hot line number to be used for reporting incidents

- Provide a ticketing system that records all reported incidents and that can be accessed by ISTD and generated various incident reports

- Applying the latest fixes, patches and required upgrades to the installed software during the support and maintenance period (if required) while ensuring system's integrity, reliability, conformity and normal operation for all system features including the content.

Technical proposal requirements

The bidder is required to provide the following information in the technical proposal in relation to this component:

- Provide bidder's methodology of providing the support and maintenance services required in this RFP

- Demonstrate the technical capability for the team who will be in charge for maintaining and supporting the proposed solution, by providing the team qualifications and number of people who will be dedicated for supporting and maintaining the installed solution.

- Provide the appropriate escalation matrix and procedures (with contact details for concerned parties) that guarantees performing corrective measures in case needed and in actions within a guaranteed manner.

Financial Proposal Requirements

The bidder is required to provide the following information in the financial proposal in relation to the "Operations Management" component:

- List all costs associated with the Operations Management component

Deliverables

- Service reports for all reported and resolved incidents signed by a representative from ISTD

- Proof of software subscription for the period of 36 months (If required)

- List of all fix's, patch and upgrades implemented during the support and maintenance period

- Fixed and resolved outcomes of heath check (if required).

3.6 Component 6 – Project Management

Winning bidder activities

Income and Sales Tax Department is following the PMI standards for managing projects and as per the PMI best practices.

In order to provide project management services, the winning bidder is required to perform the project management processes in addition to the activities mentioned below, noting that any other related activities and processes needed for the proper functioning of the project implementation should be provided by the winning bidder and its cost should be included in the fixed lump sum price submitted by the bidder:

- Appoint a designated Project Manager (full-time for the contract duration) to oversee the project execution together with project teams to execute all designated tasks and activities
- Develop a Project Plan, including project objectives and success criteria, deliverables, role/responsibilities, communication protocols, document control methodology, cost management, schedule management, quality management plan and any needed project plan.
- Develop and maintain the overall project schedule, and review and verify the integration of the project team's activities & deliverables
- Develop project implementation strategy based on the needs and priorities of the business owner that will ensure stakeholders buy-in and creates the needed impact at the different stages of the project
- Develop a project plan that will determine and ensure the attainment of all project objectives through the proper prioritization and dependency consideration of different project activities.
- Work with ISTD and its stakeholders to come up with solid rational for phased approach of the project implementation plan
- The winning bidder should implement a pilot according to working environment on one of the sectors (such as the medical sector) and determine the duration of subsequent application. The pilot then will be evaluated by both parties for any required modifications.
- Ensure close cooperation with ISTD Project team as well as the service provider and dependencies representatives
- Schedule and conduct on-site bi-weekly progress meetings involving the project team. Meeting Minutes will be recorded and distributed, including an outstanding action Item Log, detailing the status of key decisions, responsibility and required timing.
- Conduct Weekly progress meetings with ISTD team.
- Conduct periodic progress (steering committee) meetings with ISTD and all stakeholders' representatives at least once a month. Provide and maintain a full and comprehensive plan that covers all project management knowledge areas (i.e., time, scope, quality, HR, communication, risk, etc.)
- Develop project organization structure to underline all possible resources needed from engaged parties including their roles and responsibilities as well as their involvement at different stages of the Project

- Establish and execute a process of Quality Assurance (planning, assurance and control) for all components included in the scope of work
- Establish and execute a process for reporting project progress including deadlines; delays, issues and critical paths to ensuring deliverables are met within resource constraints
- Establish and execute a process for project risks and issues management and mitigation
- Implement submission, key performance indicators and acceptance procedures for approving project deliverables
- Close the project and document lessons learnt.

Technical proposal requirements

The bidder is required to provide the following information in the technical proposal in relation to the Project Management:

- The project's implementation methodology and approach. And the description of the different phases of the project
- Describe ideas how the overall project coordination should be tackled in order to assure proper time and effective use of resources and information
- Describe proposed implementation strategy that will ensure project success.
- Provide Project management organization structure describing roles and responsibilities
- Describe approach to Quality Assurance for all components of the scope and relevant qualifications in this field
- Describe approach for communication on the project
- Describe approach to report on project progress
- Describe approach to risks and issues management and mitigation
- Provide a list of deliverables for the Project Management.
- Describe methodology for the overall Project Management and bidder's professional qualifications (like PM certificates) in project management field
- Explicitly state commitment to adopt ISTD is the one and only project management tool to manage and collaborate regarding project activities

A detailed operational action plan should be provided, including the activities, procedures & time of work implementation, and identification of those responsible for supervision and implementation, in order to identify the required systems & equipment's during the implementation process. The communication protocols, security and protection systems, in addition to identifying the required training programs and the required operational manuals.

Financial proposal requirements

The bidder is required to provide the following information in the financial proposal in relation to the Project Management:

- List all costs associated with the Project Management.

Deliverables

The winning bidder is required to provide the deliverables mentioned below, noting that any other related deliverables needed for the proper functioning of the project implementation should be provided by the winning bidder and its cost should be included in the fixed lump sum price submitted by the bidder:

- Project kick-off presentation (in English or Arabic)
- A project milestone schedule during the project preparation phase
- Project management documentation that will cover the different knowledge areas, listed below but not limited to:

    1. Project Charter
    2. Project management plan
    3. Stakeholder management plan including project organization structure and roles and responsibilities
    4. Communications management plan
    5. Quality management plan (as Described in Quality Management Component)
    6. Risk management plan
    7. Scheduled project status and progress reports, addressing Reasons behind any deviation from Project baseline plan.
    8. Deliverables traceability matrix.

- Issues and risk logs
- Action log
- Weekly and monthly status and progress reports
- Project closing presentation (in English or Arabic)
- Project conclusion document outlining work completed, lessons learned and recommendations for "next steps".

3.7 Component 7 – Quality Management

Winning bidder activities

In order to provide Quality Management, the winning bidder is required to perform the activities mentioned below, noting that any additional related activities needed for the proper functioning of the system should be provided by the winning bidder and its cost should be included in the fixed lump sum price submitted by the bidder:

- Perform agile testing as it will be an integral part of the software development, where the whole development team will be conducting the testing on the developed features and functionalities and check behavior of the outcomes according to the expectations and requirements of ISTD team:
  1. Conduct sprint units testing for eservices and integrations points.
  2. Conduct sprint test.
- Assign a dedicated Quality team to ensure quality of project deliverables or software through the related set of (Verification and Validation) activities.
- Prepare a detailed Quality plan scope that should include all project phases, deliverables, and artifacts of any type relevant to the project nature like Portals, websites, e-Services software, documentation, etc.
- Provide all Quality deliverables which ensure that all related activities are done successfully. This includes but not limited to Test Plans, Test Case Scenarios including acceptance test scenarios, Testing results/reports, Testing Summary report, Defect (Bug) report and other required/proposed artifacts.
- Ensure proper deployment from staging environment to the ultimate Production environment after getting the approval from ISTD. These environments are to be prepared and set by the winning bidder on GPC.
- Perform all needed activities in the User Acceptance Testing that should be done in cooperation with ISTD, all bugs and defects should be solved in order to get the approval on e-Services launching before each phase.

Technical proposal requirements

The bidder is required to provide the following information in the technical proposal in relation to the Quality Management and validation, and demonstrate the approach and components through which the quality plan shall be implemented. The proposal should provide adequate explanation regarding the proposed Quality management plan, including but not limited to:

- Describe methodology for the overall Quality Management and bidder's professional qualifications (like Quality certificates/accreditation) in quality management.
- Assurance and Conformance of project deliverables and work products to established contractual agreements, processes, plans, policies, standards and procedures and e-Government requirements.

- Identify and describe the process for reviewing the test plans, test cases, and test results, identify the defect tracking processes, test environments, test roles and responsibilities, and test phase entrance/exit criteria.
- Identify and describe the process for determining whether deliverables are ready to deploy to the ultimate Production environment and production readiness criteria.
- Describe the project's quality practices, including but not limited to:
- The set of reviews and checkpoints for the project, including entry and/or exit criteria; hold those reviews, and measure against entry/exit criteria.
- The standards and KPI's to be used to measure project deliverable quality.
- The Quality metrics to be used to measure project deliverable quality.
- Identify and describe the testing tools should be used by the bidder to perform all required testing types to measure of project deliverables quality and final products.
- Provide a list of deliverables for the Quality Management, as mentioned in the deliverable section below, and as per the bidder proposed approach.

Financial proposal requirements

The bidder is required to provide the following information in the financial proposal in relation to Quality Planning and Management in the financial proposal:
- List all costs associated with Quality Management activities.

Deliverables

The winning bidder is required to provide the deliverables mentioned below, noting that any other related deliverables needed for the proper functioning of the system should be provided by the winning bidder and its cost should be included in the fixed lump sum price submitted by the bidder. Quality management documentation that will cover the different knowledge areas, including but not limited to:

- Quality Management plan (Quality and Test Plan documents)
- Quality Roles and responsibilities
- Test Case Scenarios / Test Data documents
- Test Results document and quality reports
- User and System Acceptance Criteria documents
- Quality metrics and Key Performance Indicators document
- Performed UAT sessions and approved UAT report.

4. ADMINISTRATIVE PROCEDURES AND REQUIREMENTS

4.1 Bidder Qualifications

1. Bidder should be a Partner for the proposed solution Technology vendor, alone or having a joint venture with local or international companies. A valid partnership certificate must be attached to the technical proposal.

2. Bidder should have proven experience in e-Invoicing technologies and solutions.

4.2 Response Procedures

All inquiries with respect to this RFP are to be addressed to MoDEE Tendering Department in writing by mail, e-mail or fax with the subject "NATIONAL E-INVOICING SOLUTION". Inquiries can only be addressed to [e-invoicing@modee.gov.jo] or by Fax by [2/10/2019]. Responses will be sent in writing no later than [9/10/2019]. Questions and answers will be shared with all Bidders' primary contacts.

4.3 Response Format

Bidders responding to this RFP should demonstrate up-to-date capabilities and experience in providing similar services and similar engagements of the same scope, size and nature especially in the public sector. These services and engagements must be accomplished successfully by the bidder during the last 5 years.

Bidders should demonstrate the following specific capabilities:

- Experience in implementing of e-Invoicing/taxation systems design and implementation showing previous implementation of projects of same size and/or nature (One accomplished successfully references during the previous 5 years)

- Knowledge in configuring and testing Hardware components
- IT experience in both hardware and software and other IT related areas specified in section 3
- Experience in System Security
- Experience in knowledge transfer and training
- Experience in operations support and maintenance
- Experience in web services development and standards
- General knowledge in Jordanian governmental laws and by-laws

Note: Where some skills are not available, the bidder should joint venture or sub-contract with a reputable firm to cover for this specific skill, services or equipment that all partners to a joint venture will be jointly and severally responsible towards ISTD. In case of subcontracting, the subcontractor has to be approved by ISTD and the contractor will be liable for all works performed by the sub-contractor.

Bidders' written response to the RFP must include:

Part I: Technical Proposal

A. Corporate capability statement **:** Corporate capability statement <u>must</u> include all the following:

- Corporate technical capabilities and experience in implementing e-invoicing solution design and implementation with detailed description and reference to each component underlined in Section 3: Scope of the project.
- Detailed proposed Team Resumes (each resume will be subjected to the approval of ISTD, in case of replacements the winning bidder has to abide by the ISTD requirements for replacements and approvals. In the implementation phase; ISTD reserves the right to request replacement of any resource that cannot fulfill the job)
- Description and references to similar projects performed
- Reference to appropriate work samples
- Current client list, highlighting potential conflict of interest
- Submit work plan resource allocation with their percentage of involvement
- Project Organization Structure

B. The technical proposal shall include the approach to achieving the scope of work defined in this RFP and delivering each of the major components as specified in the Deliverables section. In order for the evaluation to progress quickly and effectively, bidders are requested to provide Part I of their proposal as per the format described in **(Annex 5.7)**.

Part II: Financial Proposal

The financial proposal should include a cost summary and a detailed cost analysis section. The cost summary must provide a fixed lump sum price in Jordan Dinars for the overall scope of work and deliverables including all fees, taxes. The supporting detailed cost analysis should provide a breakdown and details of the pricing should be provided. The day rates and expenses for any consultants should be included separately along with the time for which they will be required. The bidder will provide separately all professional fees and expenses (travel, project equipment, accommodation and subsistence, etc) for the duration of the project. The pricing should show the proposed linkage between deliverables and payments. Financial proposal should include the Form of Bid **(عرض المناقصة) and summary of remuneration_(خلاصة بدلات الأتعاب)** attached in the Arabic Sample Agreement under **(ملحق الاتفاقية رقم 2 و رقم 3)** duly filled; signed and stamped by the bidder. The Financial proposal should be submitted in separation of the technical proposal. In order for the evaluation to progress quickly and effectively, bidders are requested to provide their proposal as per the format described in **(Annex 5.8)**.

- **على الفريق الثاني ان يشمل سعره الضريبة العامة على المبيعات بنسبة(16 %) الا اذا كانت الشركة خاضعة للضريبة العامة على المبيعات بنسبة (0)% (بموجب كتاب رسمى من هيئة الاستثمار يرفق مع العرض المالي) ويتم عكس هذه النسبة على السعر المقدم من قبلها .**

- **فى حال عدم توضيح الضريبة العامة عل المبيعات على السعر المقدم من قبل الشركة يعتبر سعر الشركة شامل للضريبة العامة على المبيعات بنسبة 16 %.**

Part III: Bid Security

This part includes the original Bid Security.

4.4 Response Submission

Bidders must submit proposals to this RFP to the MoDEE no later than 2:00 PM on [30/10/2019] (Jordan Local Time).
Tendering Department – 3rd floor
Ministry of Digital Economy and Entrepreneurship
8th Circle
P.O. Box 9903
Amman 11191 Jordan
Tender No. 1F2019

Tel: 00 962 6 58055642 Fax: 00 962 6 5861059
E-mail: e-invoicing@Modee.gov.jo

Proposals should be submitted as 3 separate parts each part in a separate well-sealed and wrapped envelope clearly marked, respectively, as follows:

- **Part I** "**NATIONAL E-INVOICING SOLUTION - Technical and Corporate Capabilities Proposal"**. This part (envelop) should contain 3 hard copies (1 original and 2 copies) and 1 softcopy (CD) [in Microsoft Office 2010 or Office 2010 compatible formats]. This part should not contain any reference to cost or price. Inclusion of any cost or price information in the technical proposal will result in the bidder's proposal being disqualified as irresponsive.
- **Part II** "**NATIONAL E-INVOICING SOLUTION — Financial Proposal**". This part (envelop) should contain 3 hard copies (1 original and 2 copy) and 1 softcopy (CD) [in Microsoft Office 2010 or Office 2010 compatible formats].
- **Part III** "**NATIONAL E-INVOICING SOLUTION– Bid Security**" This part (envelope) should contain 1 hard copy. This part should not contain any reference to cost or price. Inclusion of any cost or price information in the technical proposal will result in the bidder's proposal being disqualified as irresponsive.

Note: Each CD should be enclosed in the relevant envelop. Late submissions will not be accepted nor considered and in case of discrepancy between the original hard copy and other hard copies and/or the soft copy of the proposal, the hard copy marked as original will prevail and will be considered the official copy. Proposals may be withdrawn or modified and resubmitted in writing any time before the submission date.

Regardless of method of delivery, the proposals must be received by the MoDEE no later than 2:00 PM [30/10/2019] (Amman Local Time). MoDEE will not be responsible for premature opening of proposals not clearly labeled.

4.5 Response Evaluation

All responses to the RFP will be evaluated technically and financially and the winning proposal will be selected on the basis of "best value" in terms of technical superiority as well as cost effectiveness. Technical and financial proposals shall be reviewed by the Special Tendering Committee and evaluated in accordance with the following procedure:

The overall proposal will be evaluated according to the following criteria:

- Overall Technical Proposal 70%
- Overall Financial Proposal 30%
- The overall bidder's mark will be calculated as follows:

> (30%* least value of financial proposal)/bidder financial proposal value + (%70*bidder technical mark)

Technical proposal shall be first evaluated according to the following criteria:

- Past Experience in similar projects and track records (One successfully implemented references during the previous 5 years). bidders should demonstrate their experience in the below fields: (30 marks)
    - E-Invoicing design and implementation
    - Systems' integration
    - KPIs, Reports and Dashboards
    - Big Data Tools and Techniques
    - Solution Security

- Staff Qualifications and Experience (30 marks): the team should be composed of the following titles besides any specialty as per the project requirements – Bidder must propose separate and dedicated CVs for each role and highlight their relevant experience to the scope of this RFP:
    - Project Manager – PMP certified (or equivalent).
    - System Engineers – two resource with minimum 3 years of experience
    - Technical Consultant – one resources with minimum five years of experience
    - E-Invoicing/Taxation Specialist with 5 years' experience (2 Resources)
    - Certified CPA/JCPA Accountant with minimum 5 years' experience
    - Change management specialist – one resource with 5 years' experience
    - DB Administrator - One resource with minimum 5 years of experience
    - System/Business Analyst– one resource with 3 years' experience
    - Quality Engineers– one resource with 5 years' experience

- Correspondence to the RFP requirements as described in "*Technical Proposal Requirements*" section of each component within this RFP (40 marks).
    - System Design, Installation and Configuration
    - Required Solution Infrastructure
    - Solution Security
    - Training and Knowledge Transfer
    - Operation Support, Maintenance and Support
    - Project Management
    - Quality Management

Only those bidders that qualify in the technical proposal will have their financial offers reviewed. The Financial proposal will be evaluated only for companies who qualify, based on a minimum acceptable score that will be defined by the special tenders committee. The financial offer of those who do not qualify will not be opened and will be returned. MoDEE reserves the right not to select any offer. MoDEE also assumes no responsibility for costs of bidders in preparing their submissions.

4.6 Financial Terms

Bidders should take into consideration the following general financial terms when preparing and submitting their proposals:

- All prices should be quoted in Jordanian Dinars inclusive of all expenses, governmental fees and taxes
- The type of contract will be a fixed lump sum price contract including costs of all expenses incurred
- A clear breakdown (table format) of the price should be provided including price for consulting time, other expenses, etc.
- The bidder shall bear all costs associated with the preparation and submission of its proposal and MoDEE will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the proposal process.
- The bidders shall furnish detailed information listing all commissions and gratuities, if any, paid or to be paid to agents relating to this proposal and to contract execution if the bidder is awarded the contract. The information to be provided shall list the name and address of any agents, the amount and currency paid and the purpose of the commission or gratuity.
- The Bidder shall submit a (Tender Bond) proposal security on a form similar to the attached format in Jordanian Dinars for a flat sum of (175000 J.D) Jordanian Dinars (in a separate sealed envelope. The bond will be in the form of a bank guarantee from a reputable registered bank, located in Jordan, selected by the bidder. The bidder shall ensure that the (tender bond) proposal security shall remain valid for a period of 90 days after the bid closing date or 30 days beyond any extension subsequently requested by the tendering committee, and agreed to by the bidder.
- Any proposal not accompanied by an acceptable proposal security (tender bond) shall be rejected by the tendering committee as being non-responsive pursuant to RFP.
- The proposal security of a joint venture can be in the name of all members participating in the joint venture submitting the proposal or in the name of one or more members in the joint venture.
- The proposal security of the unsuccessful bidders will be returned not later than 30 days after the expiration of the proposal validity period.
- The winning bidder is required to submit a performance bond of 10% of the total value of the contract within 14 days as of the date of award notification letter.
- The proposal security of the winning bidder will be returned when the bidder has signed the contract and has furnished the required performance security.
- The proposal security may, in the sole discretion of the tendering committee, be forfeited:

  - If the bidder withdraws its proposal during the period of proposal validity as set out in the RFP; or

- In the case of winning bidder, if the bidder fails within the specified time limit to sign the contract; or sign the joint venture agreement in front of a notary public in Amman, Jordan; or furnish the required performance security as set out in the contract.

- The winning bidder has to pay the fees of the RFP advertisement issued in the newspapers.
- MoDEE is not bound to accept the lowest bid and will reserve the right to reject any bids without the obligation to give any explanation.
- Bidders must take into consideration that payments will be as specified in the tender documents and will be distributed upon the winning submission and acceptance of the scope of work and of the deliverables and milestones of the scope of work defined for the project by the first party.
- MoDEE takes no responsibility for the costs of preparing any bids and will not reimburse any Bidder for the cost of preparing its bid whether winning or otherwise.

4.7 Legal Terms

Bidders should take into consideration the following general legal terms when preparing and submitting their proposals:

- If the Bidder decides to form a joint venture, the joint venture members should duly sign the joint venture agreement attached to this RFP under **(Annex 5.10)** by authorized representatives of the joint venture partners without being certified by a notary public and to be enclosed in the technical proposal in addition to authorization for signature on behalf of each member. Only the winning bidder partners in a joint venture should duly sign the joint venture agreement attached to this RFP under **(Annex 5.10)** by authorized signatories and this agreement is to be certified by a Notary Public in Jordan
- within (10) calendar days as of the date of award notification and before signing the Contract; otherwise MoDEE is entitled to forfeit the bid bond whether it is in the name of all partners to the joint venture or in the name of any of the joint venture partners. Each partner in the joint venture shall be a business organization duly organized, existing and registered and in good standing under the laws of its country of domicile. The Bidder must furnish evidence of its structure as a joint venture including, without limitation, information with respect to:
  - the legal relationship among the joint venture members that shall include joint and several liability to execute the contract; and
  - the role and responsibility of each joint venture member

- The Bidder must nominate a managing member (leader) for any joint venture which managing member will be authorized to act and receive instructions on behalf of all the joint venture members
- All bidders should duly sign the joint venture agreement attached to this RFP under **(Annex 5.10)** by authorized representatives of the joint venture partners without being certified by a notary public and to be enclosed in the technical proposal in addition to authorization for signature on behalf of each member. Only the winning bidder partners in a joint venture should duly sign the joint venture agreement attached to this RFP under **(Annex 5.10)** by authorized signatories and this agreement is to be certified by a Notary Public in Jordan

- The bidders shall not submit alternative proposal. Alternative proposals will be returned unopened or unread. If the bidder submits more than one proposal and it is not obvious, on the sealed envelope(s), which is the alternative proposal, in lieu of returning the alternative proposal, the entire submission will be returned to the bidder and the bidder will be disqualified.

- The proposal shall be signed by the bidder or a person or persons duly authorized to bind the bidder to the contract. The latter authorization shall be indicated by duly-legalized power of attorney. All of the pages of the proposal, except un-amended printed literature, shall be initialed by the person or persons signing the proposal.

- Any interlineations, erasures or overwriting shall only be valid if they are initialed by the signatory(ies) to the proposal.

- The bid shall contain an acknowledgement of receipt of all Addenda to the RFP, the numbers of which must be filled in on the Form of Bid attached to the Arabic Sample Agreement

- MoDEE requires that all parties to the contracting process observe the highest standard of ethics during the procurement and execution process. The Special Tenders Committee will reject a proposal for award if it determines that the Bidder has engaged in corrupt or fraudulent practices in competing for the contract in question.

Corrupt Practice means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution

Fraudulent Practice means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of MoDEE, and includes collusive practice among Bidders (prior to or after proposal submission) designed to establish proposal prices at artificial non-competitive levels and to deprive MoDEE of the benefits of free and open competition.

- No bidder shall contact MoDEE, its employees or the Special Tenders Committee or the technical committee members on any matter relating to its proposal to the time the contract is awarded. Any effort by a bidder to influence MoDEE, its employees, the Special Tenders Committee or the technical committee members in the tendering committee's proposal evaluation, proposal comparison, or contract award decision will result in rejection of the bidder's proposal and forfeiture of the proposal security

- The remuneration of the Winning Bidder stated in the Decision of Award of the bid shall constitute the Winning Bidder sole remuneration in connection with this Project and/or the Services, and the Winning Bidder shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Winning Bidder shall use their best efforts to ensure that the Personnel, any Sub-contractors, and agents of either of them similarly shall not receive any such additional remuneration.

- A business registration certificate should be provided with the proposal

- If the bidder is a joint venture, then the partners need to be identified with the rationale behind the partnership. Corporate capability statement should also be provided for all partners
- The laws and regulations of The Hashemite Kingdom of Jordan shall apply to awarded contracts.

- MoDEE takes no responsibility for the costs of preparing any bids and will not reimburse any bidder for the cost of preparing its bid whether winning or otherwise.

- If the winning bidder is an international company, it must provide a local representative or a local partner in Jordan.

- Bidders must review the Sample Arabic Contract Agreement provided with this RFP and that will be the Contract to be signed with the winning bidder. Provisions in this Sample Arabic Contract Agreement are not subject to any changes; except as may be amended by MoDEE before tender submission; such amendments are to be issued as an addenda.

- Proposals shall remain valid for period of (90) days from the closing date for the receipt of proposals as established by the Special Tenders Committee.

- The Special Tenders Committee may solicit the bidders' consent to an extension of the proposal validity period. The request and responses thereto shall be made in writing or by fax. If a bidder agrees to prolong the period of validity, the proposal security shall also be suitably extended. A bidder may refuse the request without forfeiting its proposal security; however, in its discretion, the Special Tenders Committee may cease further review and consideration of such bidder's proposal. A bidder granting the request will not be required nor permitted to modify its proposal, except as provided in this RFP.

- MoDEE reserves the right to accept, annul or cancel the bidding process and reject all proposals at any time without any liability to the bidders or any other party and/withdraw this tender without providing reasons for such action and with no legal or financial implications to MoDEE.

- MoDEE reserves the right to disregard any bid which is not submitted in writing by the closing date of the tender. An electronic version of the technical proposal will only be accepted if a written version has also been submitted by the closing date.

- MoDEE reserves the right to disregard any bid which does not contain the required number of proposal copies as specified in this RFP. In case of discrepancies between the original hardcopy, the other copies and/or the softcopy of the proposals, the original hardcopy will prevail and will be considered the official copy.

- MoDEE reserves the right to enforce penalties on the winning bidder in case of any delay in delivery defined in accordance with the terms set in the sample Arabic contract. The value

of such penalties will be determined in the Sample Arabic contract for each day of unjustifiable delay.

- Bidders may not object to the technical or financial evaluation criteria set forth for this tender.

- The winning bidder will be expected to provide a single point of contact to which all issues can be escalated. ISTD will provide a similar point of contact.

- ISTD is entitled to meet (in person or via telephone) each member of the consulting team prior to any work, taking place. Where project staff is not felt to be suitable, either before starting or during the execution of the contract,   reserves   the   right   to   request   an alternative staff at no extra cost to ISTD.

- Each bidder will be responsible for providing his own equipment, office space, secretarial and other resources, insurance, medical provisions, visas and travel arrangements. ISTD will take no responsibility for any non-Government of Jordan resources either within Jordan or during travel to/from Jordan.

- Any documentation and software procured or developed under 'National E-Invoicing System' are the property of ISTD upon conclusion of 'National E-Invoicing System'. Written consent of ISTD must be obtained before sharing any part of this information as reference or otherwise.

- Bidders are responsible for the accuracy of information submitted in their proposals. MoDEE reserves the right to request original copies of any documents submitted for review and authentication prior to awarding the tender.

- The bidder may modify or withdraw its proposal after submission, provided that written notice of the modification or withdrawal is received by the tendering committee prior to the deadline prescribed for proposal submission. Withdrawal of a proposal after the deadline prescribed for proposal submission or during proposal validity as set in the tender documents will result in the bidder's forfeiture of all of its proposal security (bid bond).

- A bidder wishing to withdraw its proposal shall notify the Special Tenders Committee in writing prior to the deadline prescribed for proposal submission. A withdrawal notice may also sent by fax, but it must be followed by a signed confirmation copy, postmarked no later than the deadline for submission of proposals.

- The notice of withdrawal shall be addressed to the Special Tenders Committee at the address in RFP, and bear the contract name "National E-Invoicing System" and the words "Withdrawal Notice".

- Proposal withdrawal notices received after the proposal submission deadline will be ignored, and the submitted proposal will be deemed to be a validly submitted proposal.

- No proposal may be withdrawn in the interval between the proposal submission deadline and the expiration of the proposal validity period. Withdrawal of a proposal during this interval may result in forfeiture of the bidder's proposal security.

- The Bidder accepts to comply with all provisions, whether explicitly stated in this RFP or otherwise, stipulated in the General Supplies By-Law No. 32 of 1993 and its amendments and instructions, and any other provisions stated in the Standard Contracting sample Arabic Contract Agreement annexed to this RFP including general and special conditions.

- The winning bidder shall perform the Services and carry out their obligations with all due diligence, efficiency, and economy, in accordance with the highest generally accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe methods. The Winning Bidder shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to ISTD, and shall at all times support and safeguard ISTD's legitimate interests in any dealings with Sub-contractors or third parties.

- If there is any inconsistency between the provisions set forth in the Sample Arabic Contract Agreement attached hereto or this RFP and the proposal of Bidder; the Sample Arabic Contract Agreement and /or the RFP shall prevail

- ISTD reserves the right to furnish all materials presented by the winning bidder at any stage of the project, such as reports, analyses or any other materials, in whole or part, to any person. This shall include publishing such materials in the press, for the purposes of informing, promotion, advertisement and/or influencing any third party, including the investment community. ISTD shall have a perpetual, irrevocable, non-transferable, paid-up right and license to use and copy such materials mentioned above and prepare derivative works based on them.

- Bidders (whether in joint venture or alone) are not allowed to submit more than one proposal for this RFP.. If a partner in a joint venture participate in more than one proposal; such proposals shall not be considered and will be rejected for being none-responsive to this RFP.

- **Amendments or reservations on any of the Tender Documents**: Bidders are not allowed to amend or make any reservations on any of the Tender Documents or the Arabic Sample contract agreement attached hereto. In case any bidder does not abide by this statement, his proposal will be rejected for being none-responsive to this RFP. If during the implementation of this project; it is found that the winning bidder has included in his proposal any amendments, reservations on any of the tender documents or the Contract; then such amendments or reservations shall not be considered and the items in the tender

documents and the Contact shall prevail and shall be executed without additional cost to ISTD and the winning bidder shall not be entitled to claim for any additional expenses or take any other legal procedures.

- Nothing contained herein shall be construed as establishing a relation of principal and agent as between ISTD and the Winning Bidder. The Winning Bidder has complete charge of Personnel and Sub-contractors, if any, performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.

- The Winning Bidder, their Sub-contractors, and the Personnel of either of them shall not, either during the term or after the expiration of the Contract, disclose any proprietary or confidential information relating to the Project, the Services, the Contract, or The ISTD's business or operations without the prior written consent of The ISTD. The Winning Bidder shall sign a Non-Disclosure Agreement with ISTD as per the standard form adopted by the ISTD. A confidentiality undertaking is included in **(Annex 5.9)**.
- Sample Arabic Contract Agreement Approval:

Bidders must review the Sample Arabic Contract Agreement version provided with the RFP, which shall be binding and shall be signed with winning bidder.

Bidders must fill out, stamp and duly sign the Form of Bid (نموذج عرض المناقصة) attached to the Arabic Sample Agreement under (2) ملحق رقم and enclose it in their financial proposals.

Bidders must fill out the summary payment schedule form sub annex 3 (الملحق رقم 3) which is part of the Arabic Sample Contract version provided with the RFP, sign and stamp it, and enclose it with the Financial Proposal.

- PROHIBITION OF CONFLICTING ACTIVITIES
Neither the Winning Bidder nor their Sub-contractors nor their personnel shall engage, either directly or indirectly, in any of the following activities:

  o During the term of the Contract, any business or professional activities in Jordan or abroad which would conflict with the activities assigned to them under this bid; or
  o After the termination of this Project, such other activities as may be specified in the Contract.

- INTELLECTUAL PROPERTY RIGHTS PROVISIONS
  o Intellectual Property for the purpose of this provision shall mean all copyright and neighboring rights, all rights in relation to inventions (including patent rights), plant varieties, registered and unregistered trademarks (including service marks), registered designs, Confidential Information (including trade secrets and know how) and circuit layouts, and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields.
  o Contract Material for the purpose of this provision shall mean all material (includes documents, equipment, software, goods, information and data stored by any means):
      a) Brought into existence for the purpose of performing the Services;

b) incorporated in, supplied or required to be supplied along with the Material referred to in paragraph (a); or

c) Copied or derived from Material referred to in paragraphs (a) or (b);

- o Intellectual Property in all Contract Material vests or will vest in ISTD. This shall not affect the ownership of Intellectual Property in any material owned by the Winning Bidder, or a Sub-contractor, existing at the effective date of the Contract. However, the Winning Bidder grants to ISTD, or shall procure from a Sub-contractor, on behalf of ISTD, a permanent, irrevocable, royalty-free, worldwide, non-exclusive license (including a right of sub-license) to use, reproduce, adapt and exploit such material as specified in the Contract and all relevant documents.
- o If requested by ISTD to do so, the Winning Bidder shall bring into existence, sign, execute or otherwise deal with any document that may be necessary or desirable to give effect to these provisions.
- o The Winning Bidder shall at all times indemnify and hold harmless ISTD, its officers, employees and agents from and against any loss (including legal costs and expenses on a solicitor/own client basis) or liability incurred from any claim, suit, demand, action or proceeding by any person in respect of any infringement of Intellectual Property by the Winning Bidder, its officers, employees, agents or Sub-contractors in connection with the performance of the Services or the use by ISTD of the Contract Material. This indemnity shall survive the expiration or termination of the Contract.
- o The Winning Bidder not to benefit from commissions discounts, etc. The remuneration of the Winning Bidder stated in the Decision of Award of the bid shall constitute the Winning Bidder sole remuneration in connection with this Project and/or the Services, and the Winning Bidder shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Winning Bidder shall use their best efforts to ensure that the Personnel, any Sub-contractors, and agents of either of them similarly shall not receive any such additional remuneration.

- THIRD PARTY INDEMNITY
Unless specified to the contrary in the Contract, the Winning Bidder will indemnify ISTD, including its officers, employees and agents against a loss or liability that has been reasonably incurred by ISTD as the result of a claim made by a third party:

  - o Where that loss or liability was caused or contributed to by an unlawful, negligent or willfully wrong act or omission by the Winning Bidder, its Personnel, or sub-contractors; or
  - o Where and to the extent that loss or liability relates to personal injury, death or property damage.

- LIABILITY

  - o The liability of either party for breach of the Contract or for any other statutory cause of action arising out of the operation of the Contract will be determined under the relevant law in Hashemite Kingdom of Jordan as at present in force. This liability will survive the termination or expiry of the Contract. Winning bidder's total liability relating to contract shall in no event exceed the fees Winning bidder receives hereunder, such limitation shall not apply in the following cases (in addition to the case of willful breach of the contract):

- gross negligence or willful misconduct on the part of the Consultants or on the part of any person or firm acting on behalf of the Consultants in carrying out the Services,

- an indemnity in respect of third party claims for damage to third parties caused by the Consultants or any person or firm acting on behalf of the Consultants in carrying out the Services,

- infringement of Intellectual Property Rights

4.8 Conflict of Interest

- The Winning bidder warrants that to the best of its knowledge after making diligent inquiry, at the date of signing the Contract no conflict of interest exists or is likely to arise in the performance of its obligations under the Contract by itself or by its employees and that based upon reasonable inquiry it has no reason to believe that any sub-contractor has such a conflict.

- If during the course of the Contract a conflict or risk of conflict of interest arises, the Winning bidder undertakes to notify in writing ISTD immediately that conflict or risk of conflict becomes known.

- The Winning bidder shall not, and shall use their best endeavors to ensure that any employee, agent or sub-contractor shall not, during the course of the Contract, engage in any activity or obtain any interest likely to conflict with, or restrict the fair and independent performance of obligations under the Contract and shall immediately disclose to ISTD such activity or interest.

- If the Winning bidder fails to notify ISTD or is unable or unwilling to resolve or deal with the conflict as required, ISTD may terminate this Contract in accordance with the provisions of termination set forth in the Contract.

4.9 Secrecy and security

The Winning bidder shall comply and shall ensure that any sub-contractor complies, so far as compliance is required, with the secrecy and security requirements of ISTD, or notified by ISTD to the Winning bidder from time to time.

4.10   Documents property

All plans, drawings, specifications, designs, reports, and other documents and software submitted by the Winning bidder in accordance with the Contract shall become and remain the property of ISTD, and the Winning bidder shall, not later than upon termination or expiration of the Contract, deliver all such documents and software to ISTD, together with a detailed inventory thereof. Restrictions about the future use of these documents, if any, shall be specified in the Special Conditions of the Contract.

4.11   Removal or/and replacement of personnel

- Except as ISTD may otherwise agree, no changes shall be made in the key Personnel. If, for any reason beyond the reasonable control of the Winning bidder, it becomes necessary to replace any of the key Personnel, the Winning bidder shall provide as a replacement a person of equivalent or better qualifications and upon ISTD approval.

- If ISTD finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Winning bidder shall, at ISTD' s written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to ISTD.

4.12   Other project-related terms

ISTD reserves the right to conduct a technical audit on the project either by ISTD resources or by third party.

5. ANNEXES

5.1. Bylaw of organizing & controlling invoicing 34/ 2019) نظام تنظيم شؤون الفوترة والرقابة عليها رقم 34 لسنة 2019)

Bylaw No. (34) for the year 2019

Invoicing regulation and control system

Issued pursuant to paragraph (f) of Article (23) of the Income Tax Law No. 34 of 2014

Article 1:

This Regulation shall be cited "Invoicing Organization and Control Regulation of 2019" and come into force after 60 days from the date of its publication in the Official Gazette.

Article 2:

A. The following terms and expressions shall have the meanings assigned there to unless indicated otherwise:

Law: The effective Income Tax Law.

Minister: Minister of Finance.

Department: Income and Sales Tax Department.

Director: The Department's Director-General.

Person: Natural or legal person.

Commodity : Each natural substance or animal, agricultural, or industrial product including electricity.

Service: Each paid or unpaid work done by the person including provision of a benefit to the others, and such work does not include commodity provision unless such commodity is necessary to provide such service.

Seller : Service seller or Item seller .

Invoice: A document issued by the seller whether the commodity seller or service provider to the buyer or service recipient, indicating a description of the commodity/service, price, quantity, as well as the general sales tax of taxpayers registered with general sales tax, that is issued under the terms and conditions specified in this Regulation.

Commodity selling: is transference of the commodity's ownership to the buyer whether for a return or not, using the commodity by the taxpayer for their private purposes, enabling the others to do so for a return or not, or any legal ownership transference disposition.

Service selling: is the provision of the service by the seller to the buyer for a return or not.

B. The definitions provided for in the Law wherever they appear in this Regulation shall be used unless indicated otherwise.

Article 3:

A. The time and date on which the selling process takes place under Paragraphs (A, B) of this Article shall be the time and date of occurrence of the commodity or service selling.

Article 4:

For the purposes of implementing the provisions of this system shall be adopted invoice in all forms, whether paper, computer or electronic.

Article 5:

A. Each person selling a commodity or service for over one Dinar shall issue the invoice in duplicate including the following information:

1. Invoice serial number.

2. Full name and address of the seller.

3. Tax identification number of the seller if registered with general sales tax and the national identification number if not registered with general sales tax

4. Date of invoice issuance

5. Type, quantity, and value of the sold commodity or service, as well as total value of the invoice.

B. In addition to the provisions of Paragraph (A) of this Article, the invoice shall clearly include the buyer name in the case of deferred selling of the commodity/service or selling in installment.

C. A copy of the invoice shall be delivered to the buyer in accordance with the method used by the seller in organizing and issuing invoices, while the remaining copies shall be kept by the seller.

The seller shall confirm receipt of the invoice by the buyer If the value of it exceeds (10,000 JD).

D. The seller shall issue and regulate the invoice upon occurrence of the selling.

Article 6:

Each person required to organize and issue the invoice shall prepare a paper-based or computerized log for commodity and/or service sales with the letterhead in the name of the seller with the following contents:

    A. Log page number

    B. Buyer name

    C. Invoice number

    D. Total invoice value

Article 7:

The commercial markets or any other entity may organize a total invoice for each day, including all its daily sales, with the prior approval of the Director at the request of these authorities. This shall be regulated by instructions issued by the Minister for this purpose.

It is permissible for malls and shopping centers to organize a total invoice of their daily sales for the purposes of this Regulation provided that pre-consent of the Director shall be obtained upon the request of such entities. This shall be regulated by instructions issued by the Minister for this purpose.

Article 8:

Every person is obliged to organize and issue the invoice under the provisions of this Law:

    A. Each person required to organize and issue the invoice under the provisions of this Regulation shall keep them for four years as of the latest of the following dates:
        1. Ending date of the tax period during which the invoice was organized and issued

        2. Date of filing the tax return

        3. Date of notification of an administrative assessment decision.

    B. In the case of any dispute over the invoice, amount of tax due, or any penalties and related amounts, each person required to organize and issue the invoice under the provisions of this Regulation shall keep such invoice until the dispute is resolved or a final court decision is made. In all cases, the period of retention shall not be less that the period specified under Paragraph (A) of this Article.

Article 9:

Each commodity/service seller shall enable the Department to transfer all invoice data and information electronically to the Department, and the unit established in the Department shall be responsible for this.

Article 10:

Responsibility of matching the data and information mentioned on the invoice with the real process of commodity selling or service provision shall be on the seller and buyer alike, and each shall be responsible for the invoices that do not match with the real process.

Article 11:

A. Subject to Paragraph (B) of this Article, the establishment whose prupose on the commercial register, company register, or professional licensing is "grocery, minimarket, supermarket, and shop" and actually practice this activity with annual turnover of less than 75,000 Dinar, craftsmen whose annual turnover from the craft is less than 30,000 Dinar, as well as any other groups specified by the executive instructions shall be excluded from invoice organization and issuance.

B. If a person, not required to organize and issue the invoice, has sold a commodity/service and has enough evidence that their turnover is not less than the threshold specified under Paragraph (A) of this Article, the Director may require them to organize and issue the invoice, and the provisions of this Regulation shall apply thereto.

C. Any of the entities provided for in Paragraph (A) of this Article may submit a written request to the Department to issue the invoice, and in such case the provisions of this Regulation shall apply thereto.

Article 12:

A. The Director, upon a recommendation of a technical committee to be established in the Department, and under a written request from the seller or any other entity to which this Regulation apply, may amend the data of the invoices or issue invoice templates in line with the nature of the seller or entity's activity.

B. In case the seller does not have an electronic invoicing system, the manual invoicing system shall be used.

Article 13:

Notwithstanding the provisions of this Regulation, leasing contracts containing the data and information specified under Article 5 of this Regulation shall be used in lieu of the invoices.

Article 14:

A. Department shall follow on with implementation of invoicing issues and control implementation of the provisions of this Regulation by the persons and entities required to implement its provisions.

B. A unit shall be established to be responsible for invoicing issues, including linking commodity/service sellers to the Department and transferring data and information from the invoicing electronic systems to a central system at the Department.

Article 15:

Each person failing to issue the invoice in accordance with the provisions of this Regulation shall be penalized of tax evasion as provided by Law.

Article 16:

The Minister shall issue the executive instructions necessary to implement the provisions of this Regulation, provided that they shall be published in the Official Gazette.

E.2. Government Private Cloud (GPC)

Introduction

The Ministry of Digital Economy and Entrepreneurship (MoDEE) operates the Private Cloud at the National Information Technology Center (NITC) and it is a part of the Secure Government Network (SGN), which provides it with more secure and reliable environment to run and operates on.

Cloud computing is a general term for the delivery of hosted services over the network, enable the data center to evolve from a fixed environment, where applications run on dedicated servers, toward an environment that is dynamic and automated as shown in figure 1.

The government of Jordan decided to build consolidated data center that is powered by cloud computing Technology, and is linked to over 100 government entities via a Secure Government Network.

Benefits

Cloud computing boasts several benefits for government entities:

1. Build Virtualized data center within one hour. This will eliminate the procurement process to build Data center
2. Can scale up as computing needs. This eliminates the need for massive investments in local infrastructure and not use
3. Less of a requirement for capital expenditure, and operation cost
4. Speed-up the e-government implementation, because it will provide the infrastructure needed to develop e-services.

The GPC serve all SGN entities with the following services:

1. Ready services with covered licenses:

   - Virtual Machines as a Service:
     - Windows Server 2012 R2
     - Windows Server 2008 R2
   - Databases as a Service:
     - SQL Server 2012
     - SQL Server 2014
     - MySQL 5.1
   - Virtual Network as a Service
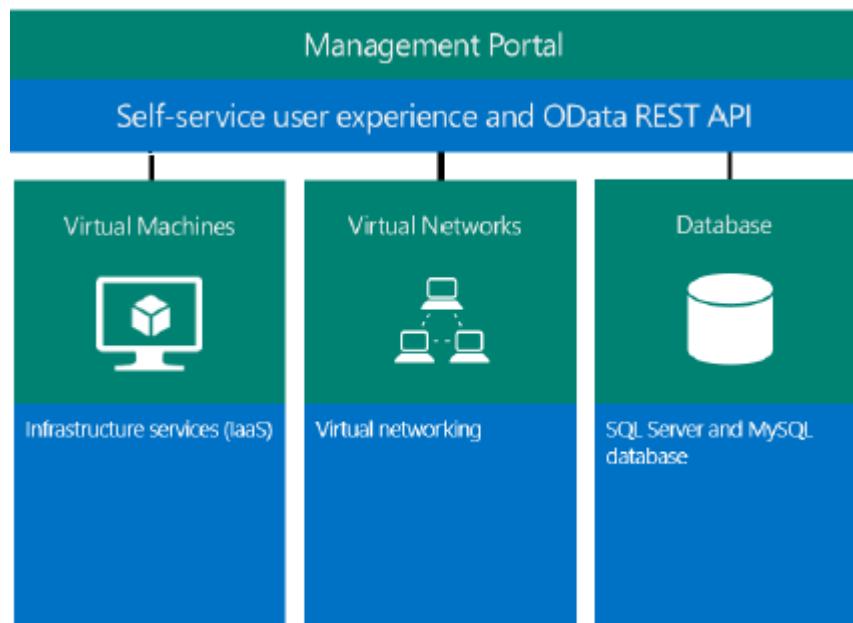
Figure 1: Government Private Cloud Computing

The Private Cloud stack is based on Microsoft Windows Azure Pack (WAP), including the following technologies:

- ➢ Windows Server 2012 R2 Hyper-V
- ➢ Hyper-V inbox Network Virtualization Gateway
- ➢ System Center 2012 R2 Virtual Machine Manager
- ➢ System Center 2012 R2 Operations Manager
- ➢ System Center 2012 R2 Orchestrator
- ➢ System Center 2012 R2 Data Protection Manager
- ➢ Windows Azure Pack with resource providers for Virtual Machines, Databases, Virtual Networks

These technologies in alignment with the virtualization layer (Hyper-V), provides the following functionalities on the Private Cloud:

- ➢ Manage the cloud's compute, network, and storage resources (Virtual Machine Manager) by allowing datacenter administrators to define the shared pooled resources, and configuring their re-usable artifacts (such as VM templates, VM networks, IP pools, etc…).
- ➢ End-to-end monitoring the cloud's resources (Operations Manager) for health and performance information. Performance Resource and Optimization (PRO) ties specific SCOM alerts to remediation actions in VMM.
- ➢ Backup and Restore resources on the cloud (Data Protection Manager).
- ➢ Offer Self-Service access for internal tenants to consume the cloud's services by subscribing to plans (Windows Azure Pack and Orchestrator)
- ➢ Allow authentication of the Self-Service Portal by user accounts residing in the existing AD DS domain.

E.3. National e-Government Contact Centre Required Information

The offered e-service solution should provide contact center agents users with enough privileges and access to Information for them to perform their required role.

In addition to the above, the winning bidder is required to deliver the following for contact center use:

Documentation and training on the following:

- Objectives and benefits of the E-Service (before /after description)
- Benefits of the E-Service
- Target population
- Provide support for the E-Service application – How to use it
- Provide information about the status – When will the end user see the result
- Provide technical support in case of problems
- Or execute the whole transaction on behalf of the customer?

E-Service frequently asked questions
- Technical
- Business (informational)

Furthermore, a number of categories of queries / contact reasons and contact drivers are anticipated:

- Difference between e-Service and physical, traditional service
- How to use
- Payment
- Fulfillment (the paper work)
- Status information
- Technical support
- Complaints

The winning bidder is required to review the above contact reasons and add to them if necessary. In addition to contact reasons types definition, the winning bidder to provide all related information to the anticipated questions. (Answer to the questions illustrated in the matrix below)

Question & Answer Matrix - Illustrative

Moment: Category:	Pre-use	During use	Post use
Difference between E-Service and traditional service	"What are the benefits, compared to going to the relevant government entities?"	"I have completed this process now, should I not go somewhere to pick up the paperwork?"	"I used to receive notification via letter, is the e-mail I just received replacing the letter?"
How to use	"How long will it take to complete the process? I use dial-up Internet access and do not want to spend a fortune of phone costs" "What kind of	"I have filled in this information on that screen, what do I do next?"	

	information do I need to have in order to complete the process?"		
Status information		"I have completed the E-Service process, when will I receive confirmation that it went OK?"	"I received confirmation last week that the process was completed. Can you see where my request is?"
Payment	"I do not trust your online payment; can I make the payment separately?"		"Can you please confirm that you received my payment?"
Fulfillment	"If I submit the request tomorrow, when will I receive the output?"		"It has been 2 weeks since I was supposed to receive my paperwork. Why haven't I received it already?"
Technical support	"What are the minimum systems requirements?" "I cannot access the application, is the website down?"	"I think my browser's pop-up blocker is interfering with the application, is that correct?" "The application crashed while I was entering my information, is everything lost?"	
Complaints	"I do not have Internet access and cannot use the E-Service, this is discrimination"	"I am having problems completing the transaction and the person trying to help me was very rude"	"I have completed the transaction but did not receive the paperwork and was charged for it, this is scandalous"

The winning bidder should make the following information ready to the contact center team to learn about:

- o The Service
- o The issues related to the current processes
- o The changes and improvements made with the E-Service
- o The processes surrounding the E-Service
- o The remaining issues that people have to deal with around the E-Service
- o The impact on the Civil Servants population
- o identify the as-is situation in the relevant government entities, as well as the expected changes due to the introduction of E-Service
- o Activities that the contact center could / need to "piggyback" in order to complete the whole process.

E.4. Customer Journey/Experience

It is envisaged that the design of standard **customer experience** '**component'** would be of great help to the MoDEE and ISTD, who may be in the process of developing new e-Government services to ensure **consistency** among e-Government services and provide a focus for **customer experience**.

1. <u>Technical Requirements:</u>
   - **Cross-Platform Capability**: e-Services must be accessible from various platforms including desktops, laptops, tablets and mobile devices.
   - **Browser Compatibility**: The winning bidder must ensure that e-Services works equally well with all popular browsers including **Chrome, Firefox** and **Internet Explorer** etc.
   - **Systems Integration**: The developer must ensure e-Services **integrates** with the relevant **backend** systems e.g. CRM, Billing, payments gateway etc. and make sure transactions are **recorded** on such systems and customer records are **updated** correctly.
   - **Alerts:** If, for some reason, the site is down, the ISTD teams should be **informed** immediately in an automated manner.
   - **Content Management System**: As well as delivering e-Services, the vendor must deliver a **Content Management System** (CMS) that will allow ISTD team (**webmaster**) to **add, edit, delete, publish etc.** items including text, multimedia and links on their own without having to go back to the vendor in the form of a '**Request for Change'** (RFC).
   - **Load Time**: The winning bidder must ensure that the speed of the main page and associated pages **always** load up within **4 seconds**. The speed test must be performed using recognized applications/tools e.g. **pingdom.com** or similar

2. <u>Features:</u>
   - **Bi-Lingual**: e-Services must cater for both **Arabic** and **English** versions.
   - **Search Engine**: e-Services must contain a **search engine** that can be interrogated for **keywords** and **multiple** criteria where appropriate.
   - **Feedback Form**: e-Services must provide a '**Feedback form'** to enable the customer to provide **comments, questions** or report **problems/complaints**.
   - **Links to e-Government Social Media Accounts**: e-Services must provide working links to MoDEE, e-Government **Social Media Accounts**

   - **Frequently Asked Questions:** e-Services should include an **FAQ** section to answer basic questions that the user may have**.**
   - **Rating:** e-Services must provide a function for the user to provide **customer satisfaction** rating for **Voice of Customer** purposes
   - **Site Map:** e-Services should include a site map that can be used for quick and painless navigation.
   - **On-Screen Message Confirmation:** For non-browsing function, each customer transaction must display a '**success'** or '**failure'** message on the screen to notify the customer of the outcome of his/her transaction.

3. <u>Logs/Reports:</u>
   - **No. of users/hits**: The winning bidder must provide **systematic daily** reports to show the number of **users, and unique users** to the site and the number of **hits** per page of the site.
   - **Transaction Logs**: The winning bidder is expected to provide daily transaction logs that would contain key information relating to '**non-browsing'** functions e.g. **payment, rating, feedback**. Each transaction should have a **unique** identification number that is system generated and can be used to traceability purposes.
   - **Incidents Report**: all incidents should be reported on the same day to the ISTD teams.

- **Service Level Agreement**: The winning bidder is expected to provide **24/7**

4. **Customer feedback:**
   - **Focus Group**: The vendor is expected to conduct **a Net Promoter Score (NPS) survey** through the use of **focus group** (10-20 people from the general public) through a recognized market research agency to assess the user-acceptability levels of e-Services.

5. **Customer information:**
   - **Userid/password complexity tests**: E-Services must perform userid/password **complexity** tests to ensure userid/password combinations are not easily guessed. Additionally, the length and format of userid/password needs to be clear e.g. 6-10 characters (a..z, A..Z, 0..9 etc). **Duplicate** userids are **not permitted**.
   - **Forgotten userid/password**: E-Services shall be able to receive requests where the customer forgets his/her userid/password.
   - **Re-activation of userid/password:** In cases where the customer terminates his/her account for a service, e-Services needs to handle cases where the customer can **re-activate** his/her account within a given grace period in a secure manner.
   - **Confidentiality**/**Security**: All customer information needs to be treated in a **confidential** and **secure** manner.

6. **Information Architecture:**
   Fonts & color schemes: E-Services should use the fonts (type & size) and color schemes as per ISTD website www.ISTD.gov.jo, this is to give a consistent '**look & feel'** for all e-Government services.
   Ownership: E-Services should clearly show its **ownership** for ISTD and that it is part of the e-Government services through the use of **Joint logos.**
   Information Structure: The information must be organized in such a way (links, drop-down menus etc.) that the user must be able to access the required information within **3 clicks**.

7. **Compliance Table:**
   The winning bidder is expected to fully comply to the above mentioned requirements

		Full Compliance	Partial Compliance	Non-Compliant	Comments
Technical Requirements	Cross-Platform Capability	x			
	Mobile App	x			
	Browser Compatibility	x	80%		
	Systems Integration				
	Alerts	x			
	Content Management System	x			
	Load Time			x	can't gurantee
Features	Bi-Lingual	x			
	Search Engine	x			
	Live Chat	x			
	Feedback Form	x			
	Links to e-Government Social Media Accounts	x			
	Frequently Asked Questions	x			
	Rating Section	x			
	Site Map	x			
	On-Screen Message Confirmation		50%		
	Panels		20%		Maximum of 3 new panels
Logs/Reports	No. of users/hits	x			
	Transaction Logs			x	
	Incidents Report		70%		Only critical incidents
	SLAs		30%		24 hour response for all incidents
Validation, Verification and Testing	Test Plan	x			
	Functional Tests	x			
	Integration Tests	x			
	Links Tests	x			
	Focus Group			x	Never done that before
Training	Training Manaual	x			
	Client Training		40%		Will train up to 4 people
Customer Infromation	Userid/password complexity tests	x			
	Forgotten Userid/password	x			
	Re-activation of userid/password	x			
	Confidentiality/Security			x	
Infromation Architecture	Fonts & color schemes	x			
	Ownership	x			
	Information Structure			x	

E.5. Service Level Agreement Requirements

5.5.1 Severity Levels:

Severity One (Urgent)

A severity one (1) issue is a catastrophic production problem which may severely impact the Proposed Solution Availability, In such case, part or all proposed Solution production components are down or not functioning; loss of production data and no procedural work around exists.

Examples of Severity one cases: DB becoming corrupted or inaccessible.

Severity Two (High)

A severity two (2) issue is a problem where the Proposed Solution is functioning but in a severely reduced capacity. The situation is causing significant impact to portions of business operations and productivity of Proposed Solution. The system is exposed to potential loss or interruption of service.

Example of Severity two cases: one node of cluster becomes down or unavailable, inability to update DB by entities representatives or solution administrators, or inability to synchronize data between DB nodes.

Severity Three (Medium)

A severity three (3) issue is a medium-to-low impact problem which involves partial non-critical functionality loss one which impairs some operations but allows the Proposed solution users/administrators to continue to function. This may be a minor issue with limited loss or no loss of functionality or impact to the client's operation and issues in which there is an easy circumvention or avoidance by the end user.

Severity Four (Low)

Important problem but it can wait no loss of functionality or impact to the client's operation and issues in which there is an easy circumvention or avoidance by the end user.

Table 1: Response, Resolution, times for different severity levels

Severity	Response Time	Resolution Time
1	1 hour	4 hours
2	3 hours	24 hours
3	4 hours	72 hours
4	8 hours	One Week

Where:

Response Time: Time taken to acknowledge receiving of reported incident calculated from the time sending an email explaining the incident, opening a ticket on bidder ticketing system, or conducting a phone call with the assigned support engineer by the bidder or bidder's first line of support.

Resolution Time: Time taken to solve the reported incident completely. Resolution Time is calculated from the end of the defined response time for each severity level as shown in the above table.

5.5.2 Escalation Procedure and Penalties:
For incidents classified as Severity Level 1, 2, 3 & 4, if bidder:

1. Passed the Response Time: first level of escalation will be applied by notifying winning bidder's Technical Support Manager or the assigned contact person.

2. Passed the Resolution Time: ISTD is entitled to fix the problem and to apply penalty on the winning bidder in accordance with the following criteria in the below table and all costs incurred by ISTD for fixing will be charged to the winning bidder.

Table 2: Penalties

Severity	Definition	Penalty
1	Must be done, essential to business survival. Business can't continue	A penalty of 80 J.D. shall be applied for each hour pass the resolution time. This penalty shall continue for the first 24 hours (80 x24). If delay continues, then the penalty of 1920 J.D. per day shall be applied and for the maximum duration of 3 days; after that, 3rd party will be called to fix the problem.
2	Should be done, near essential to business survival.	A penalty of 1920 J.D. shall be applied for each day pass the resolution time. This penalty will be applied for the maximum duration of 4 days; after that, 3rd party

		will be called to fix the problem.
3	Could be done, high benefit to business if time and resources are available.	A penalty of 1500 J.D. shall be applied for each day pass the resolution time. This penalty will be applied for the maximum duration of 5 days; after that, 3rd party will be called to fix the problem.
4	Important problem but can wait	A penalty of 1000 J.D. shall be applied for each day pass the resolution time. This penalty will be applied for the maximum duration of 10 days; after that, 3rd party will be called to fix the problem.

5.5.3 Preventive Maintenance (PM)

The winning bidder is required to provide the following visits for the purpose of PM on the hardware equipment and software from the date of the preliminary acceptance by ISTD.

- Site visits to NITC one time for each month for the first six months and one time for each quarter for the remaining maintenance period.

- Certified engineer with transportation who must present during all PM visits.

- Checking all the items that are included in the checklist that will be provided by ISTD.

- A PM form that must be signed by the winning bidder team and NITC representative.

- Compliance with the PM schedule that will be provided by NITC.

- Solution to all problems found during PM visits.

5.5.4 Penalties for defaulting on PM
A penalty of 500 JD per visit per location will be charged for not accomplishing the PM aforementioned responsibilities.

E.6. Key RFPs Dates & Deadlines

ITEM	DATE (DD/MM/YY)
Date of RFP distribution	19-26/9/2019
Deadline for submission of bidders' questions to RFP	2/10/2019
Expected date for answers to bidders' questions	9/10/2019
Proposal deadline	30/10/2019

E.7. Technical proposal response format

Introduction

Executive Summary

This includes the bidder's understanding of the terms of reference, scope of work and necessary skills, and company profile. This involves including an overview of the main points contained in the proposal with references to sections where more detailed discussion of each point can be found (maximum 4 pages).

Approach

A detailed description of how the bidder will undertake each major area in the SCOPE OF THE PROJECT and DELIVERABLES section, required resources (bidder, ministry and third party) and any special skills required, the deliverables (format and structure), use of any methodology and how it will cover the scope, use of any standard tools, and duration of any work streams.

[Activity 1]

Implementation Approach

Actions	Approach
Provides a listing of the actions needed for the Activity	*Describes the bidder's approach for implementing the action; including* ▪ *Process (i.e. steps)* ▪ *Standard methodologies adopted* ▪ *Scope of involvement for each stakeholders*
…	*…*

Deliverables

Deliverables	Format and Structure
Provides a listing of the deliverables of the Activity	*Describes the format (e.g. MS Word document) and Structure (e.g. Outline, indicating the scope and content) of each deliverable.*
…	*…*

[Activity 2]

Implementation Approach

Actions	Approach
Provides a listing of the actions needed for the Activity	*Describes the bidder's approach for implementing the action; including*

	▪ *Process (i.e. steps)* ▪ *Standard methodologies adopted* ▪ *Scope of involvement for each stakeholders*
…	*…*

Deliverables

Deliverables	Format and Structure
Provides a listing of the deliverables of the Activity	*Describes the format (e.g. MS Word document) and Structure (e.g. Outline, indicating the scope and content) of each deliverable.*
…	*…*

[Activity…]

Implementation Approach

Actions	Approach
Provides a listing of the actions needed for the Activity	*Describes the bidder's approach for implementing the action; including* ▪ *Process (i.e. steps)* ▪ *Standard methodologies adopted* ▪ *Scope of involvement for each stakeholders*
…	*…*

Deliverables

Deliverables	Format and Structure
Provides a listing of the deliverables of the Activity	*Describes the format (e.g. MS Word document) and Structure (e.g. Outline, indicating the scope and content) of each deliverable.*
…	*…*

Work Plan and Duration

The work plan and duration for the overall consulting work, including any dependencies between the separate items in the scope. The bidder should provide milestones for each deliverable. The work plan should break down the phases and tasks within each phase and indicate which resources will be working on these tasks

Track Record

The bidder's track record on projects similar in both size and nature undertaken in the last five years, and references of suitable client references with contact details

CVs of Project Staff

A summary of proposed team and a description of each project staff role and their relevant experience. Brief resumes of the team who will work on the project (all detailed resumes should be included in an Appendix). The bidder should also indicate the availability of the proposed staff and indicate which phases of the project each team member is participating in, what role they will be playing, and what their utilization rate will be (percentage of their time), below is the required template to be filled for each team member

---

Curriculum Vitae

Proposed Position on the Project: _____

Name of Firm: _____

Name of Personnel: _____

Profession/Position: _____

Date of Birth   _____

Years with the Company: _____   Nationality: _____

Proposed Duration on Site: _____

Key Qualifications and Relevant Experience

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Expected Role in the Proposed Project

_____
_____
_____
_____
_____

_____

Education

_____
_____

Employment Record:

(a) Employment Record   From date — present

Employer   _____

Position held   _____

(b) Employment record   _____ — _____

Employer   _____

Position held   _____

(c) Employment record   _____ — _____

Employer   _____

Position held   _____

Languages:

	Reading	Speaking	Writing
Language 1			
Language n			

--   ---------------------------

Signature   Date

E.8. Financial Proposal Response Format

Please indicate the overall estimated cost of your proposed solution.

Cost should be broken down as per the schedules below as well as the detailed scope of work presented in section 3 of this document.

The price quotation should be all-inclusive fixed lump sum price and provided in Jordanian Dinars (JD). All prices are inclusive of all fees and taxes. All prices are for site delivery.

Project Total Cost (Lump Sum Contract Amount) for the total compensation for the whole WORK contemplated under this proposal: [JD]

Services	Amount
System Design, Installation and Configuration	
Required Solution Infrastructure	
Solution Security Requirements	
Training and Knowledge Transfer	
Operations, Maintenance and Support	
Project Management	
Quality Management	
Total	

Total Amount in Words: (Only --Jordanian Dinars)

Project Detailed Cost:

(Jordanian Dinars)

1. *System Design, Installation and Configuration:*

System Installation and Configuration	Resource	Unit cost (man day cost)	Number of Units (man days)	Total Cost	Notes

[List all activities associated with **System Installation and Configuration**]	Skill 1				
	Skill 2				
	Skill 3				
	Skill N				
TOTAL					

Total Amount in Words: (Only ---Jordanian Dinars)

2.   *Required Solution Infrastructure:*

Required Solution Infrastructure	Resource	Unit cost (man day cost)	Number of Units (man days)	Total Cost	Notes
[List all activities associated with **Required Solution Infrastructure**]	Skill 1				
	Skill 2				
	Skill N				
TOTAL					

Total Amount in Words: (Only ---Jordanian Dinars)

Proposed Software Licenses

Software Supplier	Name of Software	License Metrics (i.e. by number of clients, processor power or other	No Licenses	Unit price	Total	One year maintenance (24/7) and upgrade

			TOTAL			

(i) Use several lines in the table if the license complexity warrants

Total Amount in Words: (Only --Jordanian Dinars)

3.   Training and Knowledge Transfer

Training and Knowledge Transfer	Resource	price per year	duration (no. of years)	Total Cost	Comments
*[List all activities associated with **Training and Knowledge Transfer]***	*Skill 1*				
	Skill 2				
	Skill n				
TOTAL					

Total Amount in Words: (Only --Jordanian Dinars)

4.   Operations, Maintenance and Support

Operations Support	Resource	price per year	duration (no. of years)	Total Cost	Comments
*[List all activities associated with **Operation Maintenance and Support]***	*Skill 1*				
	Skill 2				
	Skill n				
*[List all activities associated with **Warranty]***					
TOTAL					

Total Amount in Words: (Only --Jordanian Dinars)

5.   *Project Management:*

Project Management	Resource	Unit cost (man day cost)	Number of Units (man days)	Total Cost	Comments
[List all activities associated with **Project Management**]	Skill 1				
	Skill 2				
	Skill n				
TOTAL					

Total Amount in Words: (Only ---Jordanian Dinars)

6. *Quality Management:*

Quality Management	Resource	Unit cost (man day cost)	Number of Units (man days)	Total Cost	Comments
[List all activities associated with **Quality Management**]	Skill 1				
	Skill 2				
	Skill n				
TOTAL					

9. Other Costs (if any)

Note (1): The Itemized Financial Proposal will be examined prior Contract Award in order to ascertain that the items are correctly calculated. The itemized prices are for reference only and the lump sum price shall constitute all costs …etc incurred by the bidder for the execution of the project. Should any arithmetical error be found, it will be corrected and the Proposal Value will be amended accordingly. MoDEE encourages all bidders to study carefully their prices and to submit their final and lowest prices.

Note (2): The bidder shall also take into account that all the rates quoted in his Price Proposal shall be <u>fixed throughout the Contract</u> duration and that no adjustment to such rates shall be accepted by MoDEE , except when otherwise provided for in the Contract.

E.9. Confidentiality Undertaking

Confidentiality Undertaking
_____

This Undertaking is made on [DATE] by [NAME] "[Consultant]" to the benefit of ISTD, "[Principal]" [Address XXXXXXX].

WHEREAS, ISTD possesses certain financial, technical, administrative and other valuable Information (referred to hereinafter as Confidential Information)

WHEREAS, [Consultant], while performing certain tasks required by the Principal in connection with the ………………. (the Project), did access such Confidential Information,

WHEREAS, the Principal considers the Confidential Information to be confidential and proprietary.

Confidential Information:

As used in this Agreement, the term "Confidential Information" means all information, transmitted by Principal or any of its subsidiaries, affiliates, agents, representatives, offices and their respective personnel, consultants and winning bidders, that is disclosed to the Winning bidder or coming to his knowledge in the course of evaluating and/or implementing the Project and shall include all information in any form whether oral, electronic, written, type written or printed form. Confidential Information shall mean information not generally known outside the Principal, it does not include information that is now in or hereafter enters the public domain without a breach of this Agreement or information or information known to Winning bidder by Third Party who did not acquire this information from Principal".

The Consultant hereby acknowledges and agrees that;

(1)   The Confidential Information will be retained in the Principal's premises and will not be moved without the express written consent of the Principal. All Confidential Information shall be and remain the property of the Principal, and such Confidential Information and any copies thereof, as well as any summaries thereof, shall be promptly returned to the Principal upon written request and/or destroyed at the Principal's option without retaining any copies. The Winning bidder shall not use the Confidential Information for any purpose after the Project.
(2)   It will use all reasonable means and effort, not less than that used to protect its own proprietary information, to safeguard the Confidential Information.
(3)   the Winning bidder shall protect Confidential Information from unauthorized use, publication or disclosure.
(4)   It will not, directly or indirectly, show or otherwise disclose , publish, communicate, discuss , announce, make available the contents of the Confidential Information or any part thereof to any other person or entity except as authorized in writing by the Principal.
(5)   It will make no copies or reproduce the Confidential Information, except after the Principal's written consent.

Remedy and damages:

The Winning bidder acknowledges that monetary damages for unauthorized disclosure may not be less than 20% of the Project and that Principal shall be entitled, in addition to monetary damages and without waiving any other rights or remedies, to such injunctive or equitable relief as may be deemed proper by a court of competent jurisdiction.

Employee Access and Control of Information

It is understood that the Winning bidder might need from time to time to discuss the details of confidential Information with other individuals employed within its own or associated companies in order to support, evaluate, and/or advance the interests of the subject business transaction. Any such discussion will be kept to a minimum, and the details disclosed only on a need to know basis. Prior to any such discussion, the Winning bidder shall inform each such individual of the proprietary and confidential nature of the Confidential Information and of the Winning bidder's obligations under this Agreement. Each such individual shall also be informed that by accepting such access, he thereby agrees to be bound by the provisions of this Agreement. Furthermore, by allowing any such access, the Winning bidder agrees to be and remain jointly and severally liable for any disclosure by any such individual that is not in accordance with this Agreement.

Miscellaneous

The obligations and rights of the Parties shall be binding on and inure to the benefit of their respective heirs, successors, assigns, and affiliates. This Agreement may be amended or modified only by a subsequent agreement in writing signed by both parties. Winning bidder may not transfer or assign the Agreement or part thereof. No provision of this Agreement shall be deemed to have been waived by any act or acquiescence on the part of the Principal, its agents or employees, nor shall any waiver of any provision of this Agreement constitute a waiver of any other provision(s) or of the same provision on another occasion. This Agreement shall be construed and enforced according to Jordanian Law. The Winning bidder hereby agrees to the jurisdiction of the Courts of Amman, Jordan and to the jurisdiction of any courts where the Principal deems it appropriate or necessary to enforce its rights under this Agreement.

Term of Agreement

The obligations of the parties under this Agreement shall continue and survive the completion of the Project and shall remain binding even if any or all of the parties abandon their efforts to undertake or continue the Project.

IN WITNESS WHEREOF, the Winning bidder hereto has executed this Agreement on the date first written above.

Consultant:

By:_____

Authorized Officer

E.10.   Joint Venture Agreement Template

Standard Form of Joint-venture Agreement

JOINT-VENTURE AGREEMENT

اتفاقية ائتلاف

It is agreed on this day.............of.............2008 between:-

.... Represented by Mr. ....

.... Represented by Mr. ....

.... Represented by Mr. ....

تم الاتفاق في هذا اليوم   الموافق   /   /

.... ويمثلها السيد ....

.... ويمثلها السيد ....

.... ويمثلها السيد ....

1- To form a Joint Venture to execute the works specified in the Contract of the Central Tender No. (/   ) .... which was signed or to be signed with the Employer.

1- على تشكيل ائتلاف فيما بينهم لتنفيذ أشغال عقد العطاء رقم (/   ) المتعلق بـ... المبرم أو الذي سوف يبرم مع صاحب العمل.

2- All parties of the Joint Venture shall be obliged to perform all works agreed upon with the employer which are specified in the tender contract, and they are jointly and severally responsible for all works related to tender no. (/   ) and the contract pertaining thereto. Should one party fails or delays to perform its obligations either partially or totally, it shall be the responsibility of all other parties jointly and severally without reservation to execute all obligations set under the contract with the Employer to the same standards specified by the contract .

2- يلتزم جميع أطراف الائتلاف بإنجاز جميع الاشغال المتفق عليها مع صاحب العمل والمنصوص عليها في عقد العطاء ويكونون متضامنين ومتكافلين في مسئولياتهم نحو صاحب العمل فيما يخص كافة الأشغال المتعلقة بالعطاء رقم (/   ) والعقد الخاص به. وفي حالة تخلف أو تأخر أحد أطراف الائتلاف عن إنجاز المسئوليات المناط به تنفيذها جزئياً أو كلياً يلتزم بقية الأطراف مجتمعين و / أو منفردين دون تحفظ بإنجاز جميع الالتزامات المحددة بالعقد الموقع مع صاحب العمل بالشكل المتفق عليه في العقد.

3- The parties to the Joint Venture nominate .... as leader of the Joint Venture. Any correspondence between the Employer and the parties to the Joint Venture shall be addressed to such leader.

3- يعين أطراف الائتلاف رئيساً للائتلاف،................................ لإدارة العطاء رقم (/   ) ، وأي مراسلات تتم بين صاحب العمل والائتلاف، التجمع او المشاركة توجه إليه

4- The parties to the Joint Venture nominate Mr.. as a representative of the leader and he is authorized to sign on behalf of the Joint Venture all documents and contracts related to tender no. (/   ) , and to represent the Joint Venture before all competent courts and non-official bodies in all contractual, administrative , financial and legal issues related to tender No. (/   ) and the

4- يسمي أطراف الائتلاف السيد .... ممثلاً لرئيس الائتلاف ومفوضاً" بالتوقيع نيابة عن الائتلاف على كافة الأوراق والعقود الخاصة بالعطاء رقم (/   ) وبتمثيل الائتلاف أمام المحاكم المختصة والدوائر الرسمية وغير الرسمية في كافة الأمور العقدية والإدارية والمالية والقضائية المتعلقة بالعطاء رقم (/   ) والعقد الخاص به .

contract pertaining thereto.

5- The parties to the Joint Venture have no right to terminate this agreement or substitute the leader's representative until the works awarded to them by the contract to this tender are completed and shall remain responsible before the employer until the works are finally taken over as per the conditions of taking over specified in the Tender / Contract documents .

6- This agreement is written in both Languages Arabic and English should any discrepancy in interpretation arise the Arabic text shall be considered the authentic.

5- لا يحق لأطراف الائتلاف أو أي طرف فيه فسخ الائتلاف فيما بينهم أو تبديل ممثل رئيس الائتلاف إلا بعد انتهاء الأشغال المحالة عليهم بموجب العقد الخاص بهذا العطاء وتكون مسئولياتهم تجاه صاحب العمل قائمه إلى حين تسليم الأشغال استلاماً نهائيا حسب شروط الاستلام المحددة في وثائق العقد / العطاء

6- حررت هذه الاتفاقية باللغتين العربية والإنجليزية في حالة نشوء أي اختلاف في تفسير أي من بنودها تعتبر لغة العقد المعتمدة هي اللغة العربية وملزمة للطرفين

الطرف الثالث	الطرف الثاني	الطرف الأول
Third Party	Second Party	First Party

توقيع الشخص المخول بالتوقيع قانونياً

Signature of the Authorized Personnel

....

الخاتم المعتمد
Seal

....

Notary Public Certification   تصديق كاتب العدل

E.11.   E-Government Implementation Framework

Implementation Framework

This section provides a definition of a general framework for e-government infrastructure components that is based on the concept of the e-Government Architecture Framework (eGAF) and Service Oriented Architecture (SOA) as well as two other major initiatives – e-Government Portal and Secure Government Network – that are major supporting infrastructure components for e-Services. In addition to other important initiatives like the e-Government Contact Center, National Payment gateway(EFAWATEERcom), Government Service Bus (GSB), and National E-gov Portal.
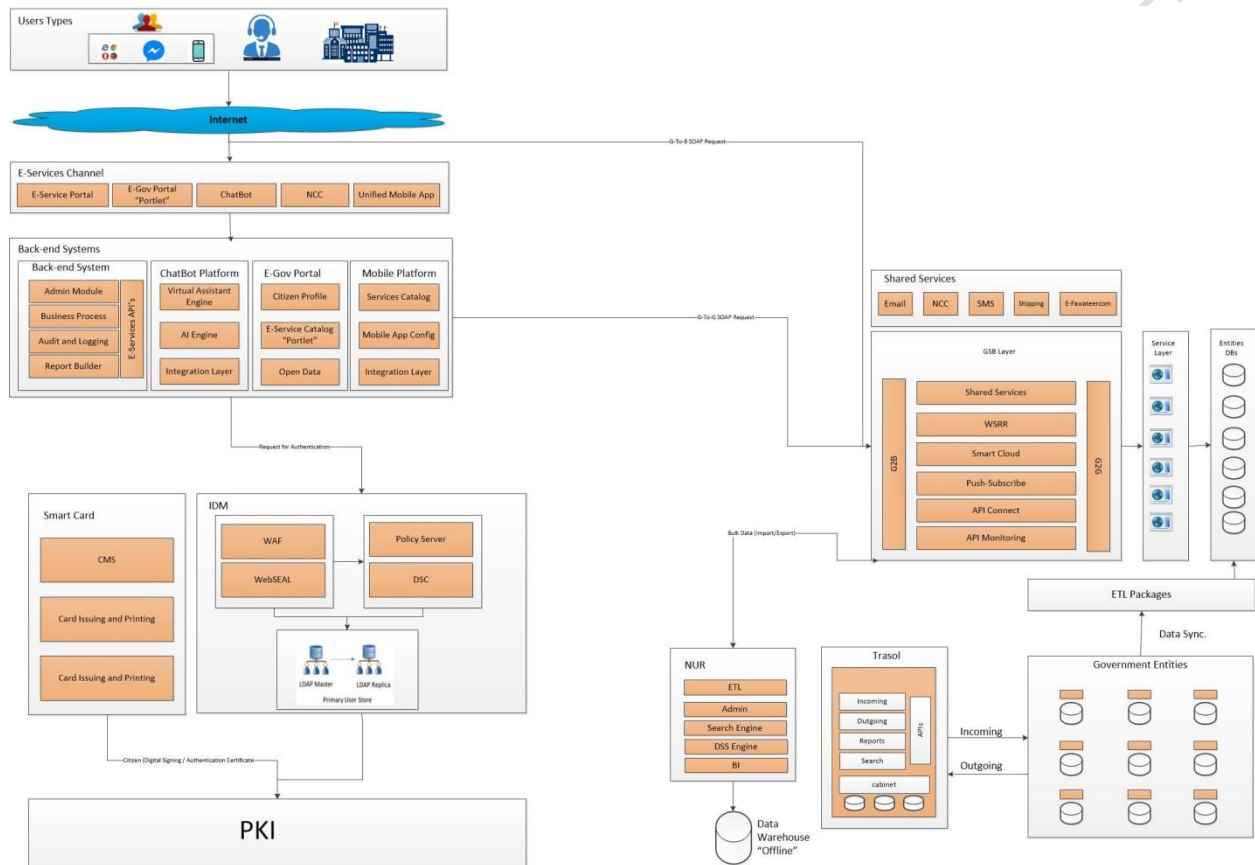

e-Government Architecture

As the facilitator of the implementation and delivery of governmental e-Services, the e-Government Program has been working diligently to define its target e-Government federated enterprise architecture, which is meant to enable seamless integration and secure interoperability of services between distributed entities cohesively and cost effectively using SOA. The responsibility of the implementation and delivery of government e-Services lies upon the government and its various entities:

The e-Government Program plays the role of the "e-Services enabler" by providing the components that constitute the Central e-Government Service Delivery Platform;

The other governmental entities (mainly ministries) play the role of the "e-Services providers" by composing and operating their e-Services, having the choice to either outsource these services, or operate them in-house.

The following diagram presents a high-level view of the various e-Government stakeholders, and depicts the federated, customer-centric nature of the e-Government architecture1:

---

[1] The diagram is meant to present a high-level view of the e-Government from a business perspective; hence many businesses and technical details do not appear for the sake of the overall understanding.
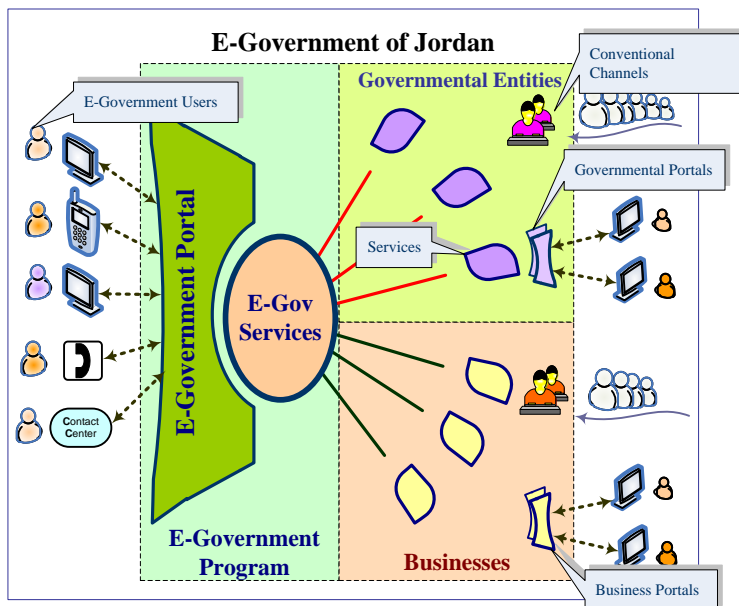
Figure 5.4.1: e-Government of Jordan High-level View

The e-Government portal of Jordan is customer-centric, i.e. all e-Services are centered on customers' needs. Currently, the e-Government Web Portal, which constitutes the central web informational portal of the e-Government, co-exists with a number of other governmental portals. Ultimately, the e-government's portal will turn into a multi-channel, one-stop-shop for all government e-Services, and will support various access and delivery channels (e.g. Web, SMS, Kiosks, etc.).

The following diagram depicts the main building blocks for the e-Government target architecture:
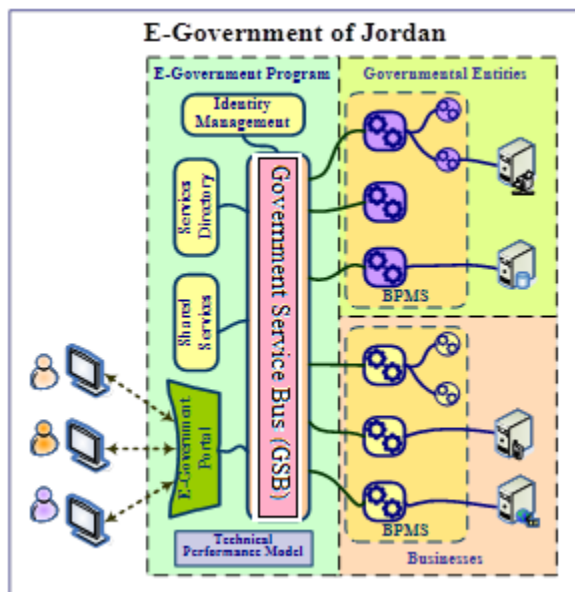
Figure 5.4.2: e-Government Architecture High-level View

As shown in the above diagram, the e-Government Program will provide a central Government Service Bus (GSB) that will serve as a unique point of traffic. It will take care of routing service invocations towards service providers and of returning responses back to the service clients (which could be the portal or some other service as in the case of cross-organizational e-Services). The e-Government Program will also provide a set of shared services (for instance National Payment Gateway ,EFAWATEERcom, notification gateway, etc.) that can be invoked from within the context of any e-Service, promoting reuse of components across the government and thus reducing the costs by eliminating the needs for dedicated implementations of components that perform the same functionalities offered by any of the central shared functionalities at the entities side. The services directory will maintain an active list of all available services as well as their interface specifications. A central identity management solution will be used to federate identities, provide (when applicable) single-sign-on, facilitate propagation of user identities and attributes

across the e-Government trust domain, and enable account provisioning. Finally, a central technical performance model will be put in place to enable concerned technical stakeholder at the e-Government Program to monitor the health and performance of the overall e-Government and identify issues and bottlenecks as well as potential areas for improvement. In order to prevent vendor lock-in, all of the above components will be built solely upon open standards, such as Web Services, SOAP. Where necessary, all service providers shall conform to the above standards in order to interoperate with other components within the e-Government framework.

The e-Government of Jordan Program will also provide Government Entities with an Enterprise Architecture Framework and methodology to help them in building their Enterprise Architecture in respect of the above principles. The e-Government Program will also provide help and support on how to apply this framework to aid the entities during the course of the framework implementation.

The e-Government Program will provide all necessary documentation and support in order to enable project implementers to produce deliverables that are in line with the e-Government architecture vision in the form of a Reference Model Winning PSPs shall have to access the necessary documentation.

E-GAF & SOA

The primary delivery models for e-government are:

- Government-to-Citizen (G2C)
- Government-to-Business (G2B)
- Government-to-Government (G2G)

Jordan e-government program is capitalizing over the G2G, G2B, and G2C service models in order to provide information integration between the different government entities to improve government processes efficiency, easy end users accessibility, increase transparency and reduce total cost of ownership.

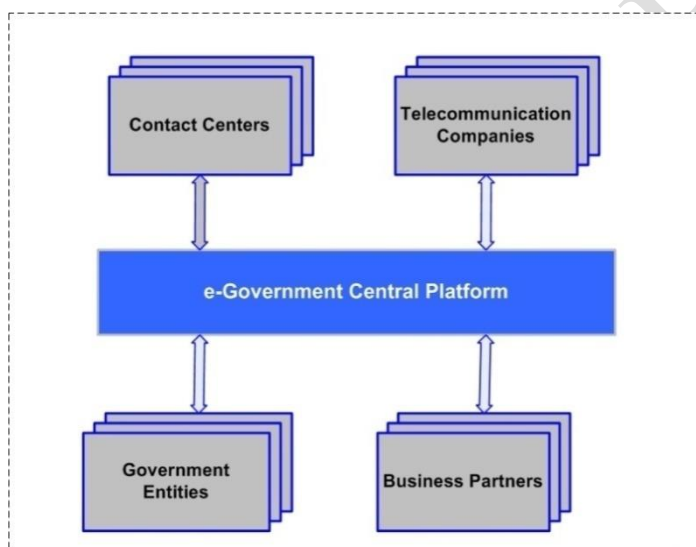The following figure depicts the different parties involved in the integration.

Figure 5.4.3: Government of Jordan Integrating Participating Parties

As seen in the figure above the following parties are involved in integration:

- **Government entities**: Government entities form the major customer and beneficiary for the business integration service provided by the e-government central platform. G2G integration model shall introduce efficient mechanism for integrating the government entities in order to deliver G2C, G2E and G2B services.
- **Telecommunication companies**: Telecommunication companies are considered business partners. The program will be responsible for providing the G2B integration services between those companies and the government entities. One example of such services can be the SMS notification.

- **Business partners:** The program will be responsible for providing the G2B integration service between business partners and government entities. Example for such business partners: payment service providers (PSP) and private banks.
- **Contact center:** Contact center's business is to serve the government entities end users. The program will be responsible for providing the G2B integration services between those contact centers and the government entities.

The IT infrastructure in the government entities and other business partners in Jordan is heterogeneous across operating systems, applications and software packages. Existing applications are used to run current business processes; so starting from scratch to build new infrastructure is a very expensive and non-practical option. Hence; government entities should quickly respond to business changes with agility; leverage existing investments in applications and application

Infrastructure in order to address newer business requirements; support new channels of interactions with clients and partners (other government entities); and feature an architecture that supports business oriented model.

SOA is efficient for large and distributed systems where other types of integration are more complex and costly.

Jordan e-Government Business Integration Patterns

The business integration patterns that will be enabled by the central platform infrastructure are:

- Vertical e-Services integration pattern: defines the pattern in which services are provided end-to-end by one government entity. It's true that such services are provided by one government entity but their integration pattern may use some of the e-government central platform shared services such as authentication, online payment, notification, contact center … etc.

- Cross organizational e-Services integration pattern: defines the pattern in which a government service requires the involvement of several government entities in order to be delivered.

- Composite e-Services integration pattern: defines the pattern in which a service flows across multiple government entities and contribute to e-Government overall objectives (e.g. GRP).

- Shared e-Services integration pattern: shared services are defined as the ''enablers'', providing technology-based functionality that are central to the provision of vertical and cross-organizational services. Their ultimate ownership belongs to the e-government central platform as part of the federated architecture framework.

Jordan Information Interoperability Framework (IIF)

The Jordan e-government program has initiated an information interoperability framework that will manage and standardize the exchange of common and shared information between the different parties involved in the e-government of Jordan such as the government entities, central platform and business partners.

The IIF mandates that all the parties should speak the same language and this includes:

- Protocol: SOAP/HTTP(s)
- Content type: XML
- Standards: Jordan e-government standards
- Format: IIF format

Note : For any new service that will be integrate with GSP it's recommended to be implemented using the WCF standard.

E-GAF and Business Process Management (BPM)

The government entities in Jordan will provide cross organizational services whose logic is distributed across other government entities and business partners including the central platform. The main provider of a service [Principle Service Provider] will host the workflow of the Cross Organizational Service. Hence, the national GSB of Jordan will not host the workflow of any Government Entity Service, nevertheless, it should enable integration between different entities' services to constitute a Cross Organizational Service.

A government entity will utilize the central platform integration services published web services, and other government entities published e-Services to compose the business processes for their cross organizational e-service. The following figure depicts the relation between the integration infrastructure provided by the e-government central platform and the BPM components at the government entities premises.
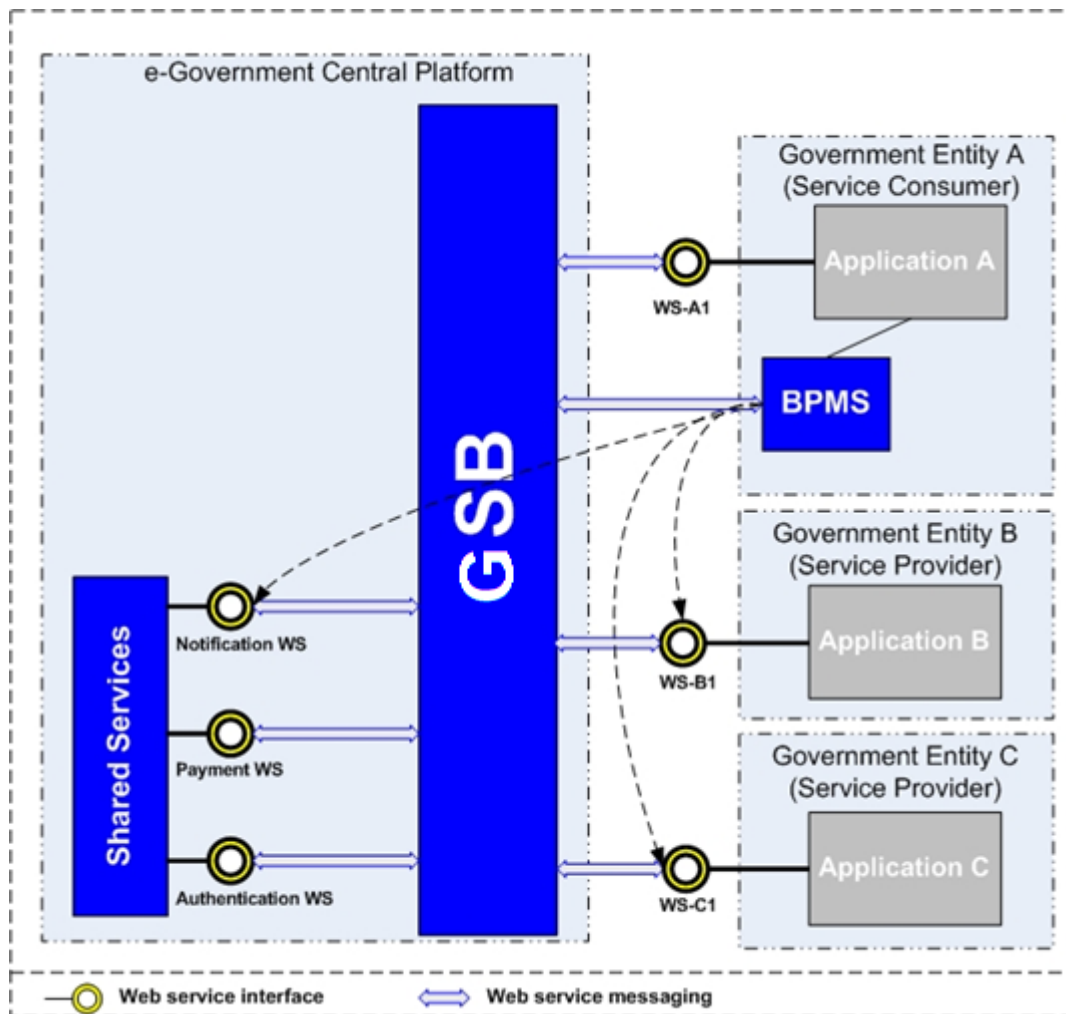
Figure5.4.4: E-GAF and BPM

As depicted in the figure above, the application in government entity "A" starts a business process that includes executing tasks at government entity "B", "C" in addition to the notification services provided by the e-government central platform. The application at "A" will communicate with the Business Process Management System (BPMS) component2 at its premises to execute the complete process. The BPMS component invokes the entity "B" Web service (WS-B1), entity "C" Web service (WB-C1) and the Notification WS web services according to the rules that had been set earlier in its rule engine.

E-GAF Integration Reference Model

The following figure depicts the E-GAF integration reference mode.

---

[2] WFMS: A software application that stores process definitions and runs jobs based on those process definitions via its workflow engine component. The workflow engine is the runtime execution module.
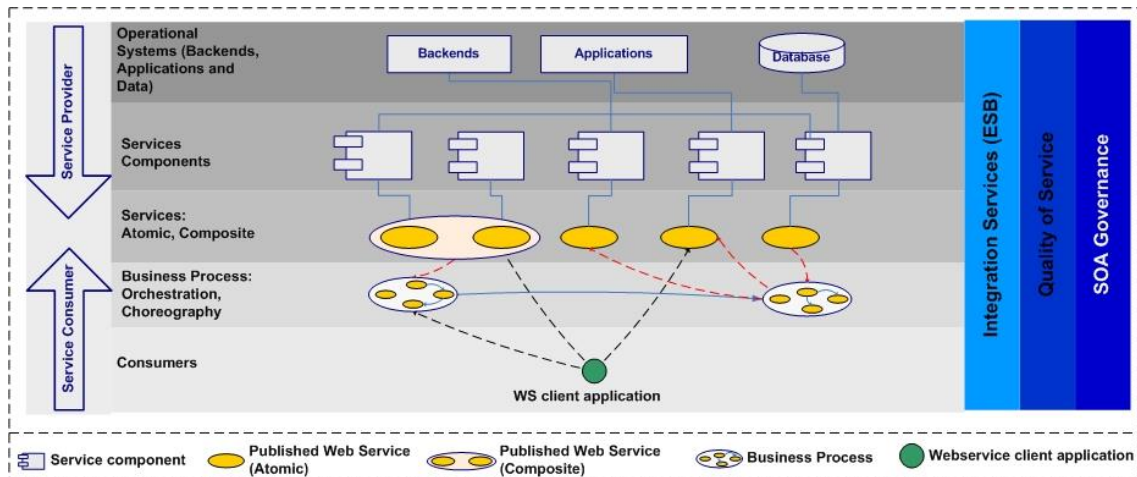
Figure 5.4.5: E-GAF Integration Reference Model

As depicted in the figure above; the reference model crosses the different parties involved in the SOA architecture: service consumer; integration services (GSB), and the service provider.

The consumer will implement the Web service client application that contains either direct calls to published Web services or calls to the orchestrated or choreographed or business processes.

The provider publishes his services (atomic and composite) through the GSB. The services are enabled by a set of components (JavaBean, EJB, COM, DCOM, PLSQL … etc.). Such components form the bridge between the backend applications, business applications and databases on one side and the web services on the other side.

The integration services at the central platform represented by the GSB form the mediator between the service consumer and service provider. The GSB provides several services and functionalities such as integration hub, services registry, security, intelligent routing …etc.

Security, audit, high availability, manageability are quality of service attributes for the integration model.

Secure Government Network

The Secure Government Network (SGN) is a large initiative linking all government entities to a secure Government Network as a part of a recently developed Connectivity Strategy. The main role of the SGN is to provide connectivity to government entities. Currently, the following services are provided through the SGN:

- File sharing/exchange between government's entities connected through the SGN.
- E-mail services (electronic services that include email messaging solution, calendar, personal communications tools, etc.).
- Inter-application communication

Upon request, MoDEE will provide the winning bidder with related document(s) describing in detail Connectivity Strategy and detailed requirements related to SGN.

Government Service Bus (GSB)

GSB Integration Requirements

The Government Service Bus (GSB) is the central enabling set of components of the e-Government infrastructure that is based on Service Oriented Architecture (SOA). The GSB provides an infrastructure that removes any direct connection between service consumers and providers. Consumers connect to the bus and not the provider that actually implements the service. This provides location independence to all services.

81

The GSB also implements further value add Infrastructure or "Fabric" services. For example, security, transaction, scalability, directory, registry and delivery assurance are implemented centrally within the bus instead of having these buried within the applications or at the government agency back-ends.

The GSB architecture enables governmental entities to connect and use ready-made components of the e-Government. The diagram below shows the conceptual architecture of the GSB.

IBM WebSphere Data Power SOA Appliances are purpose-built, easy-to-deploy network devices that simplify, secure, and accelerate your XML and Web services deployments while extending your SOA infrastructure. Data Power provides configuration-based approach to meet MoDEE's edge ESB requirements. The DataPower Appliance provides many core functions to applications, such as service-level management, routing, data and policy transformations, policy enforcement, access control, and hardened security—all in a single "drop-in" device.

For MoDEE, Data Power provides the following key benefits.
- Platform for Vertical e-Services integration: Web services from different government entities (service providers) can be securely exposed using Data Power.
- Cross Organizational e-Services Platform: Data Power provides role-based access control to ensure the right level of secure access for cross-organizational e-Services.
- Composite e-Services integration platform: Data Power is the service composition layer that exposes composite services to service consumers.
- Shared e-Services integration platform: Data Power supports modular service integration architecture.

When deploying this IBM appliance in your network, you secure your enterprise at the Application Layer vs. at the Network Layer. DataPower is a next-generation appliance that operates on MESSAGES instead of PACKETS. This enables offloading security checks and structural checks from the service providers, there by simplifying integration while minimizing performance degradation.

Solution Benefits

Using IBM Data Power as the ESB appliance, this provides the following benefits:

- Ease of implementing security and web services in a purpose-built appliance resulting in reduced Development Lifecycle and implementation costs.
- Configuration, rather than coding: This approach offers faster time to market compared to traditional coding approaches for service integration.
- Offloading tedious security tasks from Sevice Providers (Government entities), preventing potential performance degradation
- Appliance approach provides greater security compared to software based solutions (removes periodic operating system patches, OS vulnerabilities, virtualization layer vulnerabilities, regular software patches, etc.)
- Purpose built firmware, offering wire-speed processing.
- Prepare your environment for the future: DataPower is ready for mobile and web 2.0
- Extensible architecture: add-on modules can be turned on as required.
- Highly fault tolerant device (multiple power supplies, multiple network ports) with in-built load balancing & clustering options.

The Data Power Appliance is purpose-built, easy to consume and easy to use. Data Power delivers security, common message transformation, integration, and routing functions in a network device. IBM approach helps you to leverage and scale your existing infrastructure investments.

Solution components and features

The below sections lists the used components and the utilized features within the Data Power appliance during the implementation of the Edge ESG to help meet MoDEE requirements:

- **Logging**

  IBM Data Power appliance offers a bunch of different options when it comes to logging. MoDEE's main concerns when it came to logging were:

  - The ability to troubleshoot a problem when one arises: As for this point in the solution IBM Data Power offers a feature called 'debug probe', this feature can be enabled to log the messages temporarily and then view them at each stage within the policy execution, this also offers information like the requested and source URL/IP which should be sufficient when a problem arises at the message level.

  - Being able to view and track events as they occur (mostly errors): As for this DataPower's out of the box logging behavior should suffice, it offers the ability to filter the logs based on the component from which they originated and the ability to increase and decrease the level of logging details based on the current need.

  - DataPower auditing: Out of the box, DataPower offers the ability to log any administrational actions, by which user where they performed and when (this also included some lower level relevant action logging).

- **Security using SSL certificates**

  When it comes to SSL, the solution includes two different implementations:

  - Standard SSL over HTTP (for G2G services)

  In this scenario DataPower is issued a certificate which the service consumers should trust and accordingly be able to authenticate DataPower boxes and perform transport layer encryption. As for between DataPower and the service providers, DataPower should receive a copy of the public certificate of the entities it will connect to in order to trust them.

  - SSL with mutual authentication (for G2B services)

  As for this scenario the communication with the backend services is still done in the same manner but the communication with the consumers is done differently. In this case the first part still stands true where DataPower is still issued a certificate which the service consumers should trust but the difference is that the service consumers themselves should also be issued certificates which the DataPower should receive (public certificates) in order to perform a mutually authenticated connection.

  Mutual authentication or **two-way authentication** (sometimes written as 2WAY authentication) refers to two parties authenticating each other at the same time. In technology terms, it refers to a client or user authenticating themselves to a server and that server authenticating itself to the user in such a way that both parties are assured of the others' identity. As for the certificates issuing three different options were discussed:

  - Purchasing internationally trusted certificates

  - Using the new Jordan PKI to issue new certificates (in the future)

  - Using self-signed certificates (this option will not be used)

    DataPower supports four different formats when it comes to certificates and key:

    - DER

    - PEM

    - PKCS #8

- PKCS #12

Note: DataPower offers notifications for the box administrators/developers when an SSL certificate is going to expire within a month to insure minimized service downtime and a minimal impact of this event.

- **Web services proxy**

    A 'Web Service Proxy' provides security and abstraction for remote web services. It is the object where most of the implementation will be performed and where the majority of the other features are contained. A Web Service Proxy makes it easier to implement certain features for web services based on a WSDL file.
    The first step of implementing a web service in DataPower is always obtaining the WSDL (by uploading to the device or fetching from WSRR), after doing so the Web Service Proxy starts offering options starting with specifying the end point to be exposed and the protocol to be used. After that one can start applying the required policy. In the current scenario we have two policies to be applied per service the first (client to server) at the service level and another policy to apply on the way back but on a lower level and that is the operation level.
    On the client to server policy:

    - Within the AAA action the service credentials will be extracted from the message (Password-carrying UsernameToken element from WS-Security header), this identity will be validated against LDAP to decide whether the consumer is eligible to consume the service based on whether the identity is a member of the service group or not.

    - At this stage the SLA is enforced.

    - An attribute containing the identity's access level to the services is queried and stored in context variables.

    - The identity within the message is replaced with another identity which is meant to authenticate DataPower boxes at the service provider's side.

    - The destination URL is replaced with the actual service provider's URL instead the one that came with the message here.

    On the way back (server to client) each response to a consumer is filtered based on the consumer's access level to a service using a transformation action (an XSLT style sheet) and finally the response is returned to the consumer here.Guidelines for web service integration

Government to Government - SGN

The below is a list containing all the guidelines for a service provider willing to expose a service or a service consumer willing to integrate with the GSB:
1- Messages should comply with the **XML** + **SOAP** standards.
2- All the currently implemented services follow the **SOAP** standard **version 1.1.**
3- The SOAP header must contain a **Password-carrying Username Token** element from WS-Security header.
4- The currently followed approach mandates that the **Username Token should not be signed.**
5- The SOAP message should not be encrypted nor signed.
6- The current followed approach mandates **not using Timestamp** token so that consumers with a different time or time zone settings could consume the service.
7- Both the service provider and consumer must implement and **use transport layer security**
    a. SSL version 2 should not be used
    b. SSL version 3 should not be used
    c. Weak ciphers and hashes should not be used

     d.   The usage of strong ciphers only is strongly recommended
     e.   It is mandatory to use TLS v1.0 , v1.1 or v1.2
     f.   The usage of message compression is not recommended
     g.   The usage of insecure legacy SSL should not be permitted

8- The recommended certificate format to be used is **DER encoded binary X.509 certificates** (.cer)

9- The recommended **RSA key length** for the issued and used certificates and keys is **2048.**

10- Services that can provide large chunks of data at once (ex. Search based services) are recommended to **use** some sort of **pagination** and not to return all the data at once if the result is considered large enough.

11- All the **data fields within the message body** should be marked as **optional** from the provider's side and the service consumer should be able to handle any missing or empty fields appropriately (regardless of data type).

12- The message providers are free to build the message body structure as they see fit to the service requirements as long as they comply with the relevant points mentioned above.

13- **Using any additional feature** from WS-Security or WS-Standards in general is **not recommended** unless verified and approved to be supported by the GSB.

Government to Business - Edge

In addition to all the above mentioned guidelines in the G2G section above, any entity outside the government (outside the SGN network) who would like to integrate with the GSB must comply with the below:

1- The entity must comply with the **mutual authentication** or **two-way authentication** (sometimes referred to as 2WAY authentication) specifications.

Establishing the encrypted channel using certificate-based mutual authentication involves:
- A client requests access to a protected resource.
- The server presents its certificate to the client.
- The client verifies the server's certificate.
- If successful, the client sends its certificate to the server.
- The server verifies the client's credentials.
- If successful, the server grants access to the protected resource requested by the client.

Note: To establish this approach the entity should provide its public certificate to the GSB team (regardless of being a service provider or a service consumer) to ensure its trust as well as to receive the public certificate from GSB and insure that it is trusted from the entity's side as well.

Sample request message

```xml
<s:Envelope                         xmlns:s="http://schemas.xmlsoap.org/soap/envelope/"
xmlns:u="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-
1.0.xsd">

<s:Header>

    <ActivityId CorrelationId="bcf08350-0ad0-4e6a-b596-9994e137b45c"

    xmlns="http://schemas.microsoft.com/2004/09/ServiceModel/Diagnostics">9dc40624-
    0ae7-4984-8806-4e251982b213</ActivityId>

    <o:Security s:mustUnderstand="1"

    xmlns:o="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
    secext-1.0.xsd" >

        <o:UsernameToken u:Id="uuid-1349a92e-13f7-41d1-bdde-0021a9c1d276-79">

                <o:Username>UserName</o:Username>

                <o:Password>********</o:Password>

        </o:UsernameToken>

    </o:Security>

</s:Header>

<s:Body>

    <operation xmlns="http://tempuri.org/" >

        <NationalNo>123456789</FirmNationalNo>

    </operation>

</s:Body>

</s:Envelope>
```
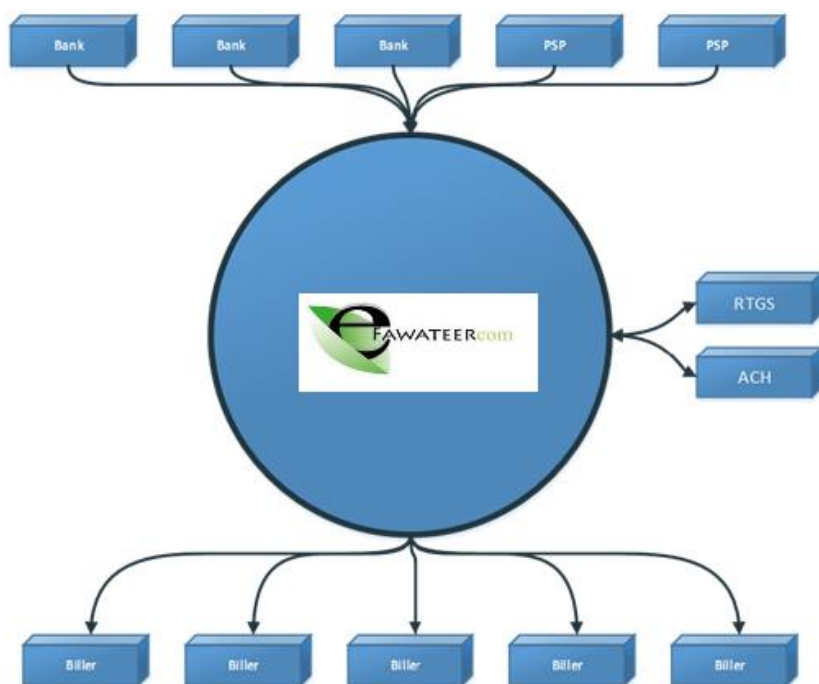
eFAWATEERcom:

eFAWATEERcom solution has the ability to connect different banks and PSPs with different billers and/or financial houses or services providers, and at the same time, the solution integrates with the RTGS and the ACH for settlement.

Figure 5.4.6 eFAWATEERcom Switch

Business Process Operations (BPOs) of eFAWATEERcom

The following workflow shows the main stages that eFAWATEERcom consists of:
- Bill Upload
- Bill Presentment
- Bill Payment
- Settlement and Reconciliation

Note:

The solution is capable of supporting different types of payments (periodic, one-off, non-existing bill, non-banked customer payments) in addition to handling all payment status cycle (New, Updated, Sent, Completed).
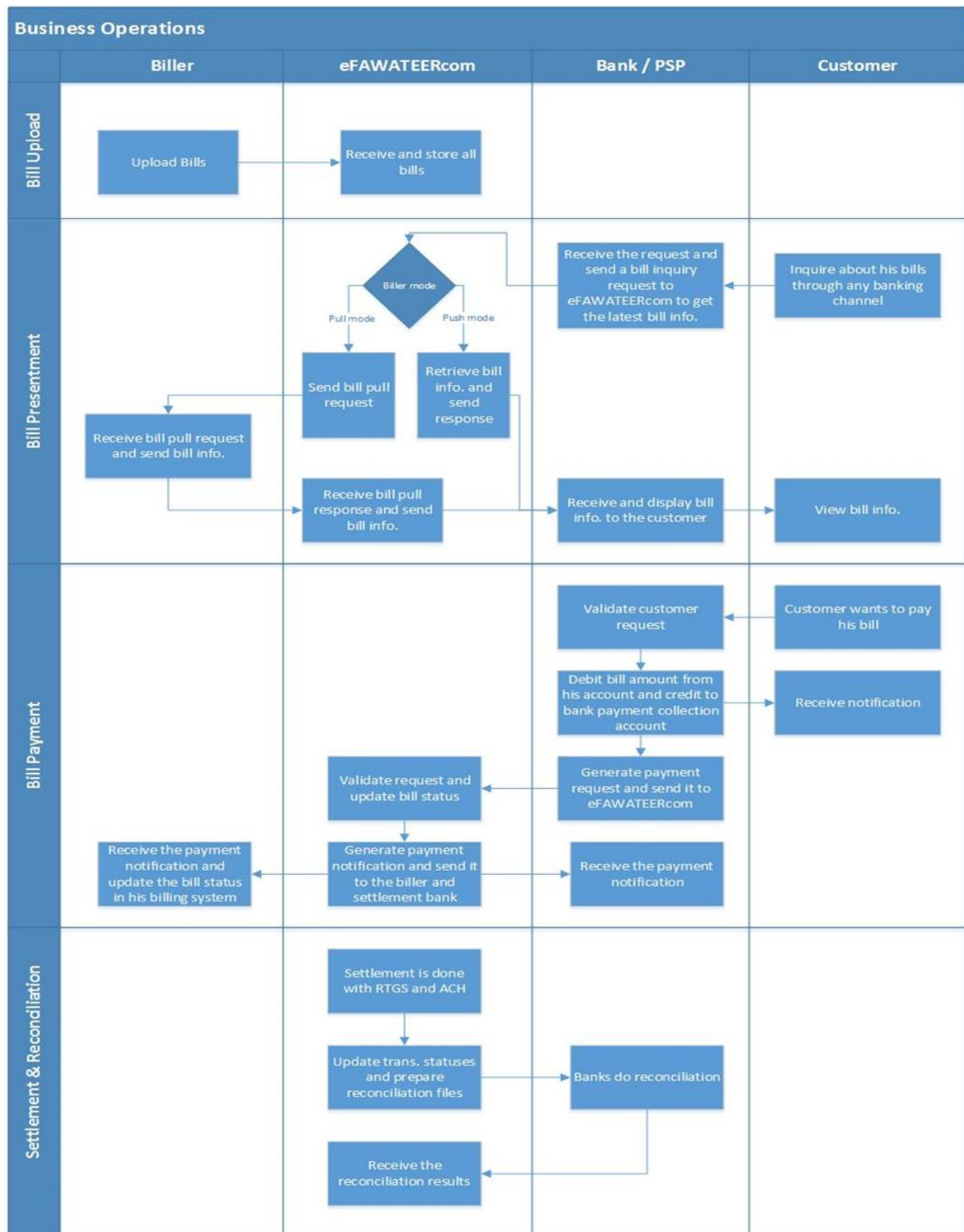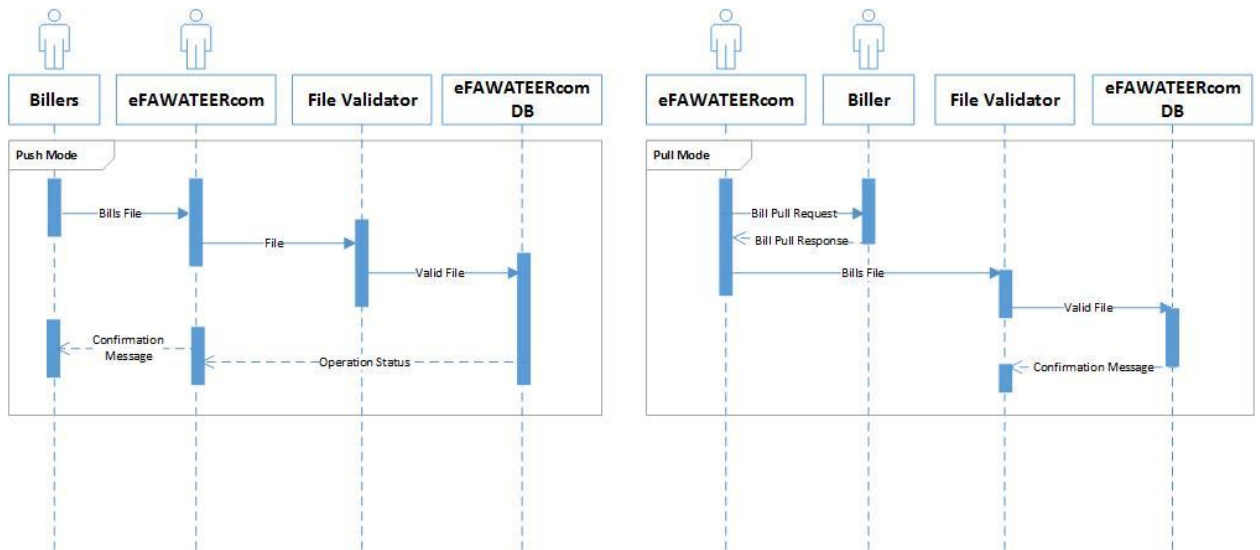
Business Operations

	Biller	eFAWATEERcom	Bank / PSP	Customer
Bill Upload	Upload Bills	Receive and store all bills		
Bill Presentment	Receive bill pull request and send bill info.	Biller mode — Pull mode / Push mode; Send bill pull request; Retrieve bill info. and send response; Receive bill pull response and send bill info.	Receive the request and send a bill inquiry request to eFAWATEERcom to get the latest bill info.; Receive and display bill info. to the customer	Inquire about his bills through any banking channel; View bill info.
Bill Payment	Receive the payment notification and update the bill status in his billing system	Validate request and update bill status; Generate payment notification and send it to the biller and settlement bank	Validate customer request; Debit bill amount from his account and credit to bank payment collection account; Generate payment request and send it to eFAWATEERcom; Receive the payment notification	Customer wants to pay his bill; Receive notification
Settlement & Recondilation		Settlement is done with RTGS and ACH; Update trans. statuses and prepare reconciliation files; Receive the reconciliation results	Banks do reconciliation	

Figure 5.4.7 Business Process Operation

Bill Upload

Figure 5.4.8 Bill Upload Process

The previous workflow describes in general the bill upload process:

- Billers are required to upload bill summary data to eFAWATEERcom on a regular basis using the Bill Upload Process; this process can be:
- Biller initiated (Push) via web service using XML file structure or file transfer using different formats such as XML, CSV, or any other flat file structure that can be defined as part of the gap analysis.
- eFAWATEERcom initiated (Pull) via web service using XML file structure, and can be performed through eFAWATEERcom.
  - On receiving the uploaded bills, eFAWATEERcom performs certain validations on the bills to maintain bills data accuracy. These are:
- Data Validations.
- Business Validations.
  - If the file/batch has errors/inconsistencies, the systems reject the entire file/batch of records and return it to the biller for reprocessing, and it will mention the rejection reason.
  - Each bill on eFAWATEERcom database carries a code that shows the status of the bill such as BillNew, BillUpdated, or BillExpired.
  - The solution will response to billers after a successful bill upload operation is performed successfully.
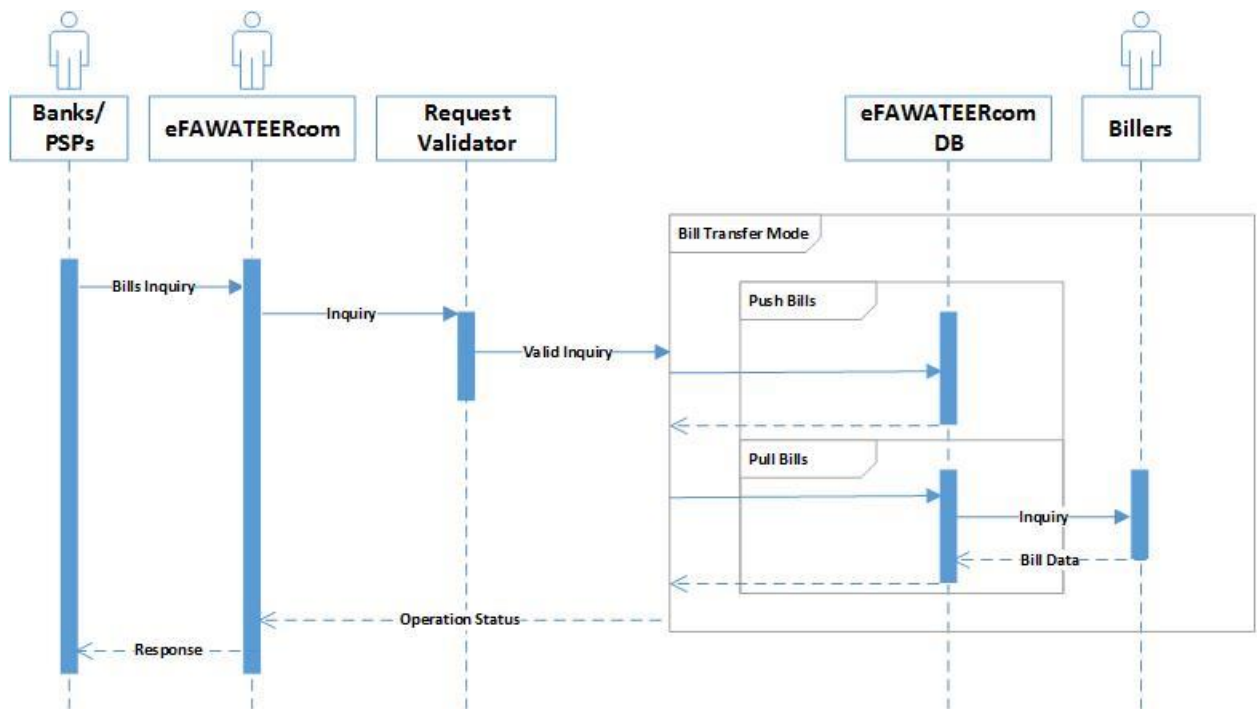
Bill Presentment (Bill Inquiry)

Figure 5.4.9 Bill Presentment

The previous workflow describes in general the bill presentment process:

- Bank applications may query eFAWATEERcom for bill and associated payment data using a bill inquiry message. The query can take the form of a Bill-Specific (single) Query in which the Bank wishes to view bill data for a specific account or bill number. Conversely, a Customer Profile query permits the Bank to query on any Customer associated bills (multiple) within the eFAWATEERcom system using a variety of parameters.
- The bill inquiry request contains a set of information that entered by the customer such as 'Bill No.' plus a set of information that are provided from the bank application such as [Biller Code, Billing No.].
- eFAWATEERcom verifies all the business rules (active, inactive, etc...) to be validated for each request, and based on the verification result, it either accepts or rejects the request.
- The response of bill inquiry may contain one or more records based on the criteria used in the query and might return zero results as well.
- All transactions occur across a wide range of channels such as Bank ATM, Internet Banking, Bank Teller, Call Center and Point of Sale.
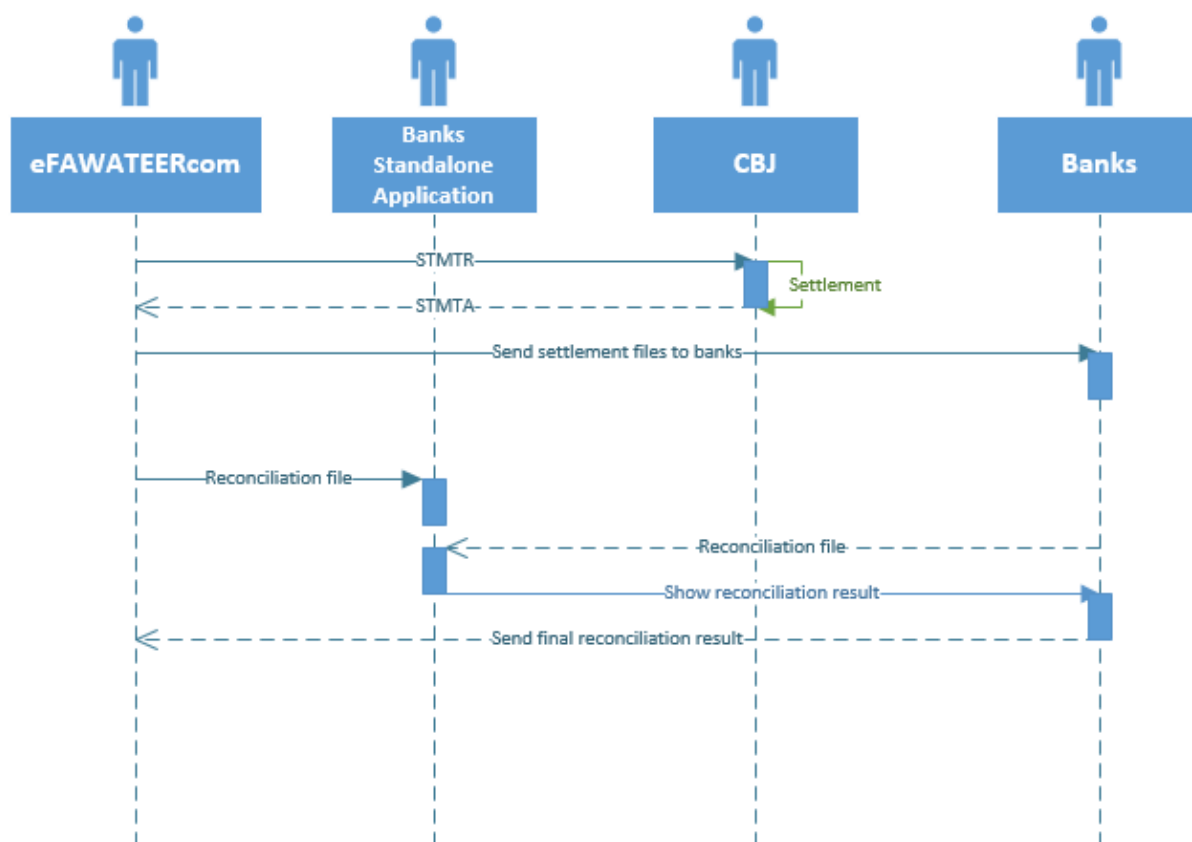
Bill Payment
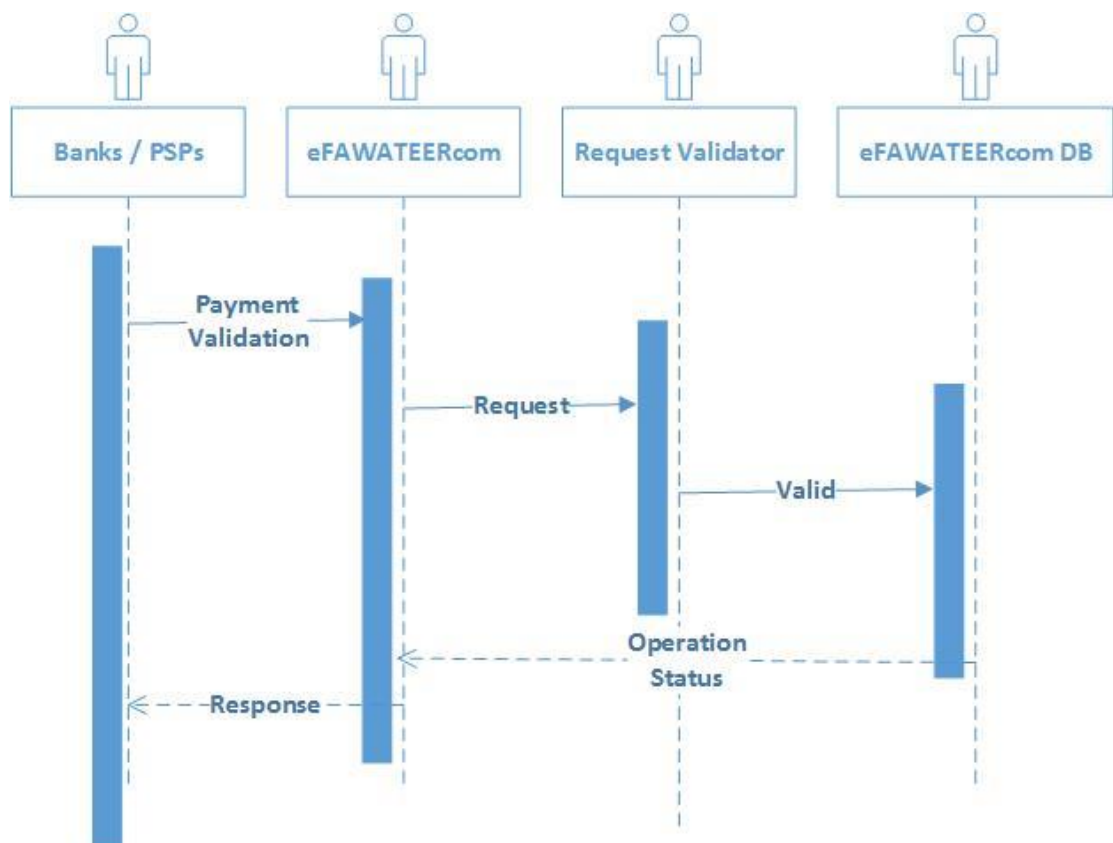
Figure 5.4.10 Bill Payment Sequence

The previous workflow describes in general the bill payment process:

- The Payment process permits Banks to create new payment records in eFAWATEERcom. The process is intended to ensure the customer pays according to Biller intent, and it involves a validation of Biller's payment rules.
- If the funds are not sufficient, the bank shouldn't send a bill payment request for eFAWATEERcom.
- A payment collection account will be set-up in each Settlement Bank.
- Banks must record data about all payments in storage termed as eFAWATEERcom Payment Log.
- All transactions occur across a wide range of channels such as Bank ATM, Internet Banking, Bank Teller, Call Center, and Point of Sale.

Settlement & Reconciliation

Figure 5.4.11 Settlement & Reconciliation Process

The previous workflow describes in general the settlement and reconciliation process:

- eFAWATEERcom sends a settlement file to RTGS (STMTR) that includes all payments details in totals.
- CBJ "RTGS" will process the STMTR file and sends the response (STMTA) to eFAWATEERcom system.
- Same operation is repeated for the purpose of the fees totals, meaning that settlement with RTGS will happen for the payments and the fees separately.
- eFAWATEERcom sends two settlement files to the Banks/PSPs including the net total payments and total fees in CSV format, where each file will contain one row for the total payments and in the other file one row for the total fees.
- eFAWATEERcom will allow paying banks to reconcile their payment transactions using the standalone application (Which is a website that is used for reconciliation purposes) where each bank is supposed to upload its data and match with eFAWATEERcom data.
- As for settlement banks, and for any unmatched payment transaction (After receiving settlement payment and fees notifications from RTGS end of that particular day), they can use the standalone application for investigating their transactions statuses.
- Paying banks can send their reconciliation results to eFAWATEERcom, where the result file will be placed automatically on the bank inward FTP directory where eFAWATEERcom support team will investigate unmatched payments.

More details will be given upon award.

E-Government PUSH SMS API Connectivity

1. Send SMS API:

http://bulksms.arabiacell.net/vas/http/send_sms_http?login_name=login&login_password=password&msg=messageText&mobile_number=9627XXXXXXXX&from=senderID&tag=X&delivery_date=XXXX-XX-XXXX:XX&charset=XXXXXX&unicode=X&dlr=X&dlr-url=http://xyz.com/get_status.php?msg_id=XXXXXX&status=%d

- **Parameters:**

Parameter Name	Description
mobile_number (Mandatory)	Mobile number of the user. Mobile number should be in the international format, example 962790000000
msg (Mandatory)	SMS text.
delivery_date (Optional)	Message sending date, the date should be with format (yyyy-mm-dd hh:mm).
login_name (Mandatory)	Login name used to access your account over the SMS PUSH Interface.
login_password (Mandatory)	Password used to access your account over the SMS PUSH Interface.
from (Mandatory)	Sender ID or name already reserved and defined over the SMS PUSH Interface.
tag (optional)	Message Type : 1. معاملة حالة عن اعلام 2. وارشادية توعوية 3. ترويجية 4. داخلي اتصال
Charset (Optional)	Message characters-set, (windows-1256 or UTF-8).
Unicode (Optional)	1 for Arabic Message. 0 fro English Message.
dlr (Optional)	Request delivery report on the sent messages, 1. Delivered messages. 2. Undelivered messages. 3. All messages delivery statuses (Delivered and Undelivered).
dlr-url (Optional)	URL to be fetched if the dlr parameter is present. eGov PUSH SMS Sender will replace parameter '%d' in the provided URL with 1 for

	delivery success or 2 for delivery failure, URL must be encoded and length should not exceed 100 chars.

- **API Responses:**

In case of success message submitting to the eGov PUSH SMS Sender, the below are the possible return messages:
- I01-Job (Job ID) queued for processing. (For messages with message date equal to the current date and time)
- I02-Job (Job ID) has been scheduled. (For messages with message date greater than the current date and time)

And below are listing of possible errors could be returned by the system.
- **Errors:**
  - E01-Invalid USERNAME or PASSWORD.
  - E02-Account Expired.
  - E03-Account Inactive.
  - E04-Empty SMS message.
  - E05-Invalid mobile number.
  - E06-SMS balance already expired.
  - E07-SMS balance already consumed.
  - E08-Database error.
  - E09-One of the following parameters missing, USERNAME, PASSWORD, MESSAGE TEXT OR MOBILE NUMBER.
  - E010-Invalid delivery date.
  - E011-Date and time for scheduled messages should be greater than the current date and time.
  - E012-You cannot schedule SMS job(s) after SMS expiry date.
  - E013-You cannot schedule SMS job(s) after account expiry date
  - E014-Not allowed to send SMS through HTTP interface.
  - E015-SMS message exceeded the max size for the selected language.
  - E016-Invalid sender ID, sender ID must be in English chars and less than or equal 11 in length, space and special characters not allowed.
  - E-022- dlr values should be 1, 2 or 3 only.
  - E-021- dlr-url length exceeded 100 chars.

2. View Account details and Scheduled Messages API:
   http://bulksms.arabiacell.net/vas/http/sch_tasks_http?login_name=login&login_password=password&action=n

- **Parameters:**

Parameter Name	Description
login_name (Mandatory)	login name used to access your account over the SMS PUSH Interface.
login_password (Mandatory)	Password used to access your account over the SMS PUSH Interface.
Action (Mandatory)	0 : to list all the scheduled messages. 1 : return user credit details (SMS balance), SMS expiry date, Sub-account expiry date and allowed Sender IDs (Comma separated)

95

- **API Responses:**

In case of success request, the returned values will be one of the responses mentioned in the description column for parameter (Action). In addition, below are listing of possible errors could be returned by the system.

- **Errors:**
  - E01-One of the following parameters missing, USERNAME, PASSWORD or ACTION.
  - E02-Invalid USERNAME or PASSWORD.
  - E03-no schedule tasks.
  - E04-Sorry, Account Inactive.
  - E05-Sorry, Account Expired.
  - E06-Error, Invalid action number.

E.12. S**ample Arabic Contract Agreement (Attached)**

<Sample contract in Arabic attached>