

Terms of Reference

Selection of Consulting Firm for Establishing Pakistan Customs Containers/Cargo Tracking & Monitoring System

1. Background

The Government of Pakistan is implementing a reforms program to mobilize domestic revenues to finance its development vision. The World Bank through Pakistan Raises Revenue Project (PRRP) is financially supporting this program. The overall objective of the Project is to “contribute to a sustainable increase in domestic revenue by broadening the tax base and facilitating compliance”. The duration of the implementation of project is six-years (2019-2025).

Reforms for high performance and innovation in the Federal Board of Revenue (FBR) are essential for sustained growth in revenue collection to meet the country’s budgetary demands and to finance development programs for public welfare. The main emphasis of the said reforms is promoting voluntary observance through robust compliance control mechanism, enhanced facilitation for the concerned/ stakeholders, improvement of Information and Communications Technology (ICT) based Data Systems for automation and improving the accountability and transparency.

The Federal Board of Revenue (FBR) intends to initiate a container/vehicle tracking system for advanced monitoring and tracking of transit/transshipment cargo from sea ports to inland stations/land border crossing points and vice versa. In this regard, services of an experienced consulting firm are being sought to propose/ design a complete solution to the Directorate General of Transit Trade, Karachi and implement the said project/ solution leveraging latest technologies ensuring end-to-end integrity of cargo movement with zero possibility of pilferage. The solution shall include guidance on operational setup for the project including human resource hiring and training.

2. Objective of the Assignment

FBR (hereinafter termed as “Client”) seeks the services of a consulting firm (hereinafter termed as the “Consultant”) which shall design and implement, for the Client, an advanced monitoring system for transit / transshipment of cargo from port to inland stations / border crossing points, leveraging latest technologies ensuring end-to-end integrity of cargo movement with zero possibility of pilferage.

The assignment has the following general components:

- i. Gap Analysis and Evaluation of the existing transit trade system.
- ii. Assessment of the existing operational infrastructure, including hardware and software requirements.
- iii. Development of pricing and revenue model.
- iv. Regulatory and legal compliances and documentation as needed.
- v. Assistance/ supervision in implementation of the project.

3. Deliverables and Time Lines

S. #	Deliverable	Timeline	Type	Content
1.	Prepare a detailed report after gap analysis and evaluation of existing system and subsequently procure and implement this design through a project plan delineating project scope, timelines and milestones, within the timeframe	12 weeks	The following report types will be required: a. Preliminary Gap Analysis (PGA) Report b. Report on Scope of the Pilot Project c. Comparison of the above two Reports d. Report on Recommendations	The PGA report shall encompass necessary loopholes <u>as given under Annex-A1</u> of the existing system that needs immediate attention <u>so that integrity of the cargo is kept intact at maximum.</u> The report on Scope and comparison, as name suggests, are clear as far as its content is concerned. Finally, <u>conclusions drawn /recommendations from the aforementioned analysis will help inform the design of piloting a new system</u>
2.	Detailing of requirements for operational infrastructure, including hardware and software requirements as prescribed in Tracking and Monitoring of Cargo Rules, 2023,	6 weeks	Based on the recommendations read with scope of the pilot project, the following types of Reports shall be prepared: a. Report on Requisite Advanced Software System b. Report on Requisite Advanced Hardware System	<u>The report will not only inform about the requisite hardware and software</u> intended for the Pilot Project, keeping in view its due scope arising from the number of containers as suggested to be tracked, <u>but will also identify the necessary operational requirements from commissioning of the system till its installation by the consultant. Further, it is emphasized that subject work will not be restricted to reporting only. The role of consultant shall include the complete assistance in execution of all follow-up actions arising from identification of necessary hardware and software requirements.</u>
3.	Support development of technical requirements for procurement of such hardware and software and establishment of central and regional control rooms:	8 weeks	In continuation, an IT Infrastructure Requirement Report enclosing BoQs for Control Room shall be prepared. The report shall be so designed that it will form basis of the RFP (Request for Proposal).	This report prepared by the consultant shall <u>include</u> the item wise contents for establishing the complete architecture of a Control Room ranging from furniture and fixture to software and hardware requirements. <u>It will consider the need for connecting Control Room</u> with Port Operations, and relevant focal points falling under Cargo Streams as delineated under the law.
4.	Develop a detailed pricing and revenue model;	2 weeks	A Business Proposal covering all involved Business Process Flows indicating all financial flows	This report shall inculcate the necessary framework for pricing and revenue model from both legal and administrative point of view.

5.	Provide guidance on regulatory compliance, legal requirements, and documentation needed by the Directorate General of Transit Trade:	4 weeks	A report enclosing SRO 996(I)/2023 dated 01.08.2023, SRO 609(I)/2020 dated 07.07.2020, relevant rules issued vide SRO 450(I)/2001 dated 18.06.2001 and other relevant legal documents will be provided accordingly.	The report will highlight essential details pertaining to tracking and monitoring as a procedure so that the same is automated in the system as per law, <u>specifically in line with amendments made in the law in the form of SRO 996(I)/2023 dated 01.08.2023.</u>
6.	Provide technical assistance and supervision during implementation phase of the contract:	Depending upon the duration of the Contract which is tentatively 6 months' time	<u>The subject Assistance Report will be prepared covering the services offered by the consultant</u>	<u>In continuation to the above, it is being clarified that the PMO services shall be offered by the consultant shall include all activities pertaining to procurement (identification of the necessary hardware and software till its installation), recruitment of the requisite staff and their training.</u> The report will include weekly statements (<u>duly approved by the Directorate General of Transit Trade</u>) on <u>execution of</u> the said assistance offered and supervision provided <u>by the consultant.</u>
7.	Provide guidance and assistance for human source requirement, recruitment and training:	Depends upon the availability of relevant human resource	The subject Human Resource and Capacity Building Report will be prepared as and when need arises during the currency of the contract.	The report, <u>duly approved by the Directorate,</u> will provide gap analysis pertaining to available human resources and needed staff thereby pointing out the need for type and duration of the requisite training in respect of tracking and monitoring, <u>as it is clear that a new system in the form of Pilot Project, run by Customs, will be deployed. The provision of the indicated capacity building training by the consultant shall be done in letter and spirit.</u>

8.	Prepare a final report (and the related presentation), highlighting the details of the pilot project, any shortcomings, and future course of action to be approved by the Project Director.	2 weeks	<p>The following reports shall be prepared:</p> <p>a. Summary of all the actions <u>right from procurement, till installation, and from recruitment till training / capacity building</u> undertaken during <u>implementation of</u> the Project;</p> <p>b. Comparison of the <u>forementioned</u> list of actions with that of scope of the Pilot Project;</p> <p>c. As a result of above, a report on list of shortcomings, if any; and</p> <p>d. Final Report incorporating future course of action depending upon the above exercise in entirety.</p>	<p><u>The subject reports shall:</u></p> <p>a. <u>Review / Indicate any relevant area which could not be covered on account of any reason during the implementation of the Pilot Project;</u></p> <p>b. <u>Specify the flexibility in the implementation of the Pilot Project so that there is room for Customs Operations for extended work on tracking and monitoring in future. Similarly, it is clarified again that the subject Firm shall also make its services available at the time of procurement and implementation of the Project, accordingly. Furthermore, all the reports generated, shall strictly indicate the steps / actions to be taken for implementation of the said Pilot Project so that practical aspects are documented in black and white and undertaken/implemented step-wise through the hired consultant.</u></p>
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4. Qualifications and Experience of the Firm:

The firm must meet the following qualifications to be considered;

- i. At least twelve (12) years of post-registration advisory/ consulting experience with specialized skills in the cargo/vehicle tracking industry offering similar services.
- ii. The firm should have completed at least three similar projects of similar scale and complexity in comparable organizations.
- iii. The firm should have technical personnel corresponding to the required areas of the Terms of Reference with adequate logistical capacity.
- iv. The firm should be a current COBIT/ ISO9000 or equivalent certified firm.
- v. The firm should provide details (documentary evidence e.g., contract award or reference letter from the clients stating scope of services and deliverables) of all such projects for the last 5 years or more during which they were completed. In case, of joint venture/ consortium, the details of such projects will be provided separately for each member as lead or associated consultant.
- vi. In case of affiliation with a Global Professional Services firm, copy of affiliation document shall be provided.

5. Team Composition and Qualification Requirements for the Key Experts

The Firm shall employ and provide such qualified and experienced Personnel and Sub-Consultants as are required to carry out the Services. The titles, agreed job descriptions / experience, and estimated periods of engagement in the carrying out of the Services of the Firm's Key Personnel are as under:

Sr.	Designation/Qualification of Key Experts	No of Positions	Engagement Period
1.	<p>Title: Project Manager</p> <p>Qualification: Bachelors/ Master Degree (minimum 16 Years of Education) in Project Management, Business Administration, Engineering, IT, Economics or similar relevant field.</p> <p>Experience: 15 years of post-qualification experience in managing similar scope and nature projects.</p> <p>Certifications: Project Management Certifications</p>	01	Contract Period
2.	<p>Title: IT Consultant</p> <p>Qualification: Bachelors/ Master (minimum 16 Years of education) in Computer Sciences, IT, Software Engineering or similar relevant field.</p> <p>Experience: 12 years of post-qualification experience.</p> <p>Skills: Expert in optimizing IT systems for maximum efficiency and security, ensuring seamless business operations</p>	01	24 Weeks
3.	<p>Title: Software Architect</p> <p>Qualification: Bachelors/ Master (minimum 16 Years of education) in Computer Sciences, IT, Software Engineering or similar relevant field.</p> <p>Experience: 8 years of post-qualification experience.</p> <p>Skills: Expert in designing, implementing, and managing software development architecture, ensuring optimal performance, security, and scalability.</p>	01	16 Weeks
4.	<p>Title: Software Engineer</p> <p>Qualification: Bachelors/ Master (minimum 16 Years of education) in Computer Sciences, IT, Software Engineering or similar relevant field.</p> <p>Experience: 12 years of post-qualification experience.</p> <p>Skills: Empowering businesses with expert software engineering solutions to drive innovation and efficiency.</p>	01	24 Weeks
5.	<p>Title: Operations Consultant for Tracking and Monitoring.</p>	01	Contract Period

	<p>Qualification: Bachelors/ Master Degree (minimum 16 Years of Education) in Project Management, Business Administration, Engineering, IT, Economics or similar relevant field.</p> <p>Experience: 15 years of post-qualification experience.</p> <p>Skills: Empowering businesses to streamline processes, optimize efficiency, and achieve operational excellence</p>		
6.	<p>Title: Technical Consultant for Tracking and Monitoring</p> <p>Qualification: Bachelors/ Master Degree (minimum 16 Years of Education) in Engineering, IT, Computer Science or similar relevant field.</p> <p>Experience: 12 years of post-qualification experience.</p> <p>Skills: Expert in designing solutions, evaluation of hardware for IoT solutions</p>	01	20 Weeks
7.	<p>Title: Financial Analyst</p> <p>Qualification: Bachelors/ Master (minimum 16 Years of education) in Economics, Accounting, Statistics, Business Administration or other relevant field</p> <p>Experience: 5-6 years of post-qualification experience.</p> <p>Skills: Expert in financial forecasting, data analysis, and strategic financial planning to drive business growth and profitability</p>	01	16 Weeks

6. Duration

The expected consultancy period is 6 months.

7. Reporting Requirements:

- i. The assignment will be conducted in continuous consultation Project Director Directorate General of Transit Trade, Karachi.
- ii. Weekly updates shall be shared with Project Director Directorate General of Transit Trade, Karachi.
- iii. Final reports (after incorporating comments of FBR) shall be submitted in soft form in addition to the specified number of hard copies.

8. Client's Input and Counterpart Personnel

Services, facilities and property to be made available to the Consultant by the Client:

- i. Office space with necessary amenities.
- ii. Availability of Key experts during the assignment.

9. Selection Process

The Consulting Firm will be selected in accordance with the Consultant's Qualification Selection (CQS) method as set out in the World Bank's "Procurement Regulations for IPF Borrowers" July 2016, revised November 2017 and August 2018.

Some loopholes observed under the existing system:

- a) **Monopoly of the Licensee:** The existing system is run by a single licensee – a private company- since the inception of the STE project. This monopoly of the single company has negatively impacted on growth of the system and quality of service;
- b) **Incomplete Access:** Customs has limited or restricted access to the deployed software system. Besides, the source key is with licensee;
- c) **Incomplete Visibility:** The deployed system has limited visibility of the features and accessibility to Customs;
- d) **Insecure IT Systems:** The existing IT system of the licensee is not robust in terms of its security and sustainability as has been witnessed lately.
- e) **Poor Real-Time Report Management:** During the routine work, alerts are communicated through Whatsapp, whereas the same is suggested to be reported by the system through its own customized software in the form of auto-generated alerts through involvement of AI;
- f) **Lack of Capacity Building in Tracking and Monitoring:** Since Customs own system is to be deployed, therefore training to Customs staff to use the same will be required for achieving the desired results;
- g) **Lack of Customs Involvement:** Currently, Customs role in the system deployed by the licensee is merely reduced to that of observation or extraction of information if available. Customs' role is required to be enhanced and comprehensive;
- h) **Neither Robust nor Economical:** The currently deployed system is frail and vulnerable on many counts. For example, the system at times communicates incomplete information pertaining to trip start or trip end. The system is required to be robust and economical so as to ensure both ease of doing business as well as to be strong enough not to get compromised;
- i) **Lack of Profiling:** The system does not produce results based on profiles of the bonded carriers / transporters / carriers/ clearing agents etc; and
- j) **Outdated System:** The system is old and lacking in disruptive technologies, such as AI and Data Analytics & tools to generate meaningful and actionable alerts. The new system should be fully compliant of the SRO 996(I)/2023 dated 01.08.2023.