

### Request for Expression of Interest

Name of Project:- **Advance Agreement for Preparation of Proposed Revenue Mobilization –DLI .**

**World Bank Loan/Credit:- Preparation Advance No. Q813.PK**

The Federal Board of Revenue (FBR) Government of Pakistan has received financing from the World Bank towards the cost of the Project preparation Facility (PPF) for Revenue Mobilization Project and intends to apply part of the proceeds to following consulting services:

Name of assignment	Brief background	Qualification of consultants
<b>AUDIT OF FBR-PRAL IT SYSTEMS</b>	<p>The World Bank has been providing assistance to the Government of Pakistan in its efforts to raise tax revenue, in order to enhance sustainable, equitable growth and reduce poverty.</p> <p>The purpose and scope of the consultancy is to perform an audit of the relationship between FBR and PRAL in which PRAL acts as a single ICT service provider for FBR, PRAL's technical governance model, software development, infrastructure, security of data, systems and infrastructure, operational functionality of systems, etc. in order to identify strengths and weaknesses, so that appropriate corrective measures can be taken</p>	<p>The successful Consultancy Firm who will be contracted to serve the needs of the study shall have the following minimum qualifications and shall obtain the minimum qualifying score of 70:</p> <ul style="list-style-type: none"> <li>i. The interested consultants shall be a tax registered national management consultancy firm or an international management consultancy firm compliant with applicable regulations of Pakistan for this procurement and should have been incorporated for at least five (5) years for offering similar services and have completed five (5) similar projects of this scale and complexity and in comparable organizations.</li> <li>ii. Consultant should possess good knowledge of all concepts, principles and approaches required for assignment.</li> <li>iii. 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, the details of such projects will be provided separately as lead or associated consultant.</li> <li>iv. Should propose adequate approach, methodology &amp; work plan for timely and effective completion of assignment. This particular parameter will be confirmed through a presentation to Client.</li> <li>v. Firm should have staff with adequate education, qualification and experience in area IT efficiency reviews. These staff members should possess IT relevant certifications or any other certifications but relevant to the scope of this procurement</li> </ul> <p>Indicative composition of team which may be proposed by Consultants:</p> <ul style="list-style-type: none"> <li><b>1. Team Leader/IT Specialist One</b> Masters Degree in any of IT related areas with at least 15 years overall experience with minimum of 5 years specific experience</li> <li><b>2. IT Infrastructure Auditor One</b> Masters degree in computer science or business administration or IT administration; and a professional designation (e.g. CISA, CISM, CISSP). Overall experience of 10 years and minimum of 5 years</li> <li><b>3. IT Coordinators TWO</b> Masters degree in computer science or business administration or IT administration; and a professional designation (e.g. CISA, CISM, CISSP). Overall experience of 5 years and minimum of 2 years.</li> </ul>

The FBR now invites eligible consulting firms (“Consultants”) to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services. The short-listing criteria are: [Shall possess required qualifications and experience as elaborated in qualification of consultants column].

The attention of interested Consultants is drawn to paragraph 1.9 of the World Bank’s Guidelines: Selection and Employment of Consultants [under IBRD Loans and IDA Credits & Grants] by World Bank Borrowers January (2011) (“Consultant Guidelines”), setting forth the World Bank’s policy on conflict of interest.

A Consulting Firm will be selected in accordance with the Selection Based on Consultants Qualifications set out in the Consultant Guidelines (January 2011)

Interested Consultants may obtain further information regarding Terms of Reference (TORs)/ Scope of assignment posted on FBR’s Website at [www.fbr.gov.pk/tenders/default.aspx](http://www.fbr.gov.pk/tenders/default.aspx) or from the address given below between 0900 hours to 1600 hours on any working day.

Expression of Interest must be delivered to the address below not later than 1500 hrs on 11<sup>th</sup> November, 2013.

Shahid Soomro  
Secretary (Procurement-II)  
Revenue Mobilization Programme  
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# **TERMS OF REFERENCE FOR AN INTERNATIONAL BIDDING PROCESS FOR A CONSULTING FIRM FOR AUDIT OF FBR-PRAL IT SYSTEMS**

## **Introduction and Background**

The World Bank's has been providing assistance to the Government of Pakistan in its efforts to raise tax revenue, in order to enhance sustainable, equitable growth and reduce poverty. This is an on-going effort rather than a one-off intervention. The World Bank previously sponsored Tax Administration Reform Program (TARP) and is now sponsoring Revenue Mobilization Project (RMP).

Automation in the FBR has been going on for over two decades but without proper vision, strategy and plan. This has resulted in numerous silo, stand-alone systems which fail to support data management and operational work; fragmented and poorly designed database structures which make cross-communication difficult and do not contribute to data quality. There are grave issues with the existing data, including incompleteness, inaccuracies, inconsistencies, redundancies, duplications, reconciliation difficulties and logical errors. Additionally, there are serious security problems.

## **Purpose and Scope of the consultancy**

The purpose and scope of the consultancy is to perform an audit of the relationship between FBR and PRAL in which PRAL acts as a single ICT service provider for FBR, PRAL's technical governance model, software development, infrastructure, security of data, systems and infrastructure, operational functionality of systems, etc. in order to identify strengths and weaknesses, so that appropriate corrective measures can be taken.

## **Relationship between FBR and PRAL**

The audit should determine the following:

1. Whether the contractual relationship between FBR and PRAL contains appropriate and comprehensive provisions to guarantee quality of service,

such as specification of services to be rendered by PRAL to FBR, agreed-upon key performance indicators (KPI), expected delivery timelines, minimum security guarantees, minimum availability of services and penalties for violations;

2. If yes, whether such provisions are actually and effectively applied;
3. If yes, whether a formal mechanism is available to report compliance with or deviation from such provisions and problems which adversely affect agreed-upon key performance indicators.

### **PRAL's Technical Governance**

The audit should determine the following:

1. Whether an ICT strategic plan has been prepared which is valid for at least two years; is visionary; is aligned with institutional objectives; and includes measurable goals.
2. If yes, whether such strategic plan is known to all stakeholders and is formally signed off by FBR & PRAL.
3. Whether PRAL follows international best practices in its technical governance.
4. Whether PRAL has prepared comprehensive standard operating procedures (SOP) for operations, support, maintenance, training, etc; whether such SOPs are formally signed off by FBR; whether such SOPs are periodically reviewed and updated.
5. Whether PRAL has prepared checklists or guides for database administration, specifying tasks to be performed on daily, weekly or monthly basis.
6. Whether PRAL has developed a database backup system, including a coverage model which specifies what, when and how of back up and provides for periodic verification of restorability and usability of back up.

### **Application Software**

The audit should determine the following:

1. Whether sufficient and relevant technical expertise is available for sustainable development of IT solutions.
2. Whether software development lifecycle is defined, documented, formally approved and actually applied for each software applications.
3. Whether complete and comprehensive documentation, including architecture, database structure, communication protocols, naming conventions, etc., are prepared for each software applications; and whether such documentation is continuously updated and synchronized with the actual software application.
4. Whether international best practices are followed for software development.
5. Whether functional specifications of each software application have been prepared by technical personnel alone or in consultation with business personnel.
6. Whether formal and appropriate revision / change control mechanism has been implemented; whether such mechanism evaluates all change requests to determine their appropriateness and priority; allows to keep track of each revision / change to the source code and to create development branches and versioning.
7. Whether Quality Assurance policy has been defined, documented and known to all;
8. Whether Quality Assurance mechanisms to reduce incidence of bugs, ensure alignment between the specifications and client's needs, decrease coding complexity, etc. have been practically implemented;
9. Whether the systems apply adequate and appropriate data validations / checks to ensure quality (completeness, validity, accuracy and consistency) of data; whether the architecture, database model and storage procedures prevent of transactional systems prevent data duplication / redundancy. The auditor should review the data entry process of declarations, refund requests and other documents to verify that numbers are in the correct range, that negative numbers are not entered, that all numbers are correctly calculated, that the required fields cannot be left empty, etc. If it is possible to enter incomplete, invalid and inaccurate data, complete list be provided.

10. Whether the systems have redundant data sources; if yes, a comprehensive inventory of such data sources, their use and extent and severity of differences among the data sources be provided; whether a mechanism has been devised and practically and effectively applied to maintain integrity in these redundant data sources.
11. Whether the two core software applications, ITMS and Weboc, are end-to-end, integrated solutions in true sense; whether these have been developed according to functional specifications documents which outline end-to-end, integrated solutions; if not, what is the extent and gravity of deviation from functional specifications documents?
12. Whether entire business cycles of Inland Revenue and Customs have been automated; If not, what is the extent and gravity of incompleteness (comprehensive list of leftover business processes be provided).
13. Whether any of the automated business processes is outdated, invalid, illegal or does not correspond to the actual operations. The audit should include interviews with statistically significant portion of operators and users to determine and document all such processes.
14. Whether a mechanism for managing changes / revisions in business processes (authorization, propriety, timing and tracking) is in place;
15. Whether business integration, data integration and system integration have been effectively achieved. (Business Integration refers to integration of the business processes; Data Integration refers to separate systems using the same data sources; and Systems integration refers to a single integrated system performing all functions).
16. If not, whether at least data integration strategy has been prepared to identify which systems require what data sources;, what types of protocols and mechanisms should be used to access that data; and which systems need read-only access to data and which systems require modification rights of data.

## **Infrastructure**

The audit should determine the following:

1. Whether adequate and appropriate infrastructure (servers, backup systems, standby servers, disk arrays and network storage systems, routers, hubs and switches, firewalls, bandwidth control systems and network monitors and network diagnostics equipment) is available to operate the systems, including all provisions necessary to ensure the sustainability of the operation of these systems.
2. Whether the infrastructure is properly inventoried, containing all relevant details, such as technical specifications, deployment date, warranty period and expected lifetime.
3. Whether the infrastructure is professionally managed i.e critical servers and key network services have appropriate hardware redundancy / failure contingency plans which allow continuing operations even after critical hardware failures; fault prone components for critical servers (power supplies, processors, disk drives, routers, firewalls, etc.) are timely identified and corrected; servers and critical network components are housed in an controlled environment; servers and critical network components are physically inaccessible by unauthorized personnel and administrative personnel, senior management, cleaning crews, general maintenance personnel, etc. do not have unrestricted access.

### **Data Warehousing & Data Mining**

The audit should determine the following:

1. Whether all databases are appropriately documented; whether the documentation is accurate, current and actually used by developers; whether the documentation is available to data analysts; whether the documentation corresponds to actual physical data representation; whether the documentation includes clear instructions about the mechanisms to be used to populate or extract data from the data source.
2. Whether data warehouses are properly designed, have appropriate data models and are well documented.

1. Whether data warehouses provide the amount and quality of data required by data analysts.
2. Whether these data warehouses are sustainable and are periodically updated from transactional systems.
3. Whether data warehouses are capable of producing reports / information required by different management levels; The audit should include interviews with statistically significant portion of operators and users to determine and document all cases where reports/ information are inaccurate, incomplete, late or are not produced at all.

## **Security**

The audit should determine the following:

1. Whether a security model has been defined and documented; whether actual/perceived, internal / external threats to data / systems/ infrastructure, have been accurately and comprehensively identified; whether a mechanism to protect data / systems / infrastructure against such threats has been efficiently and effectively implemented; and whether the said mechanism is regularly updated to match ever-changing threats.
2. Whether operational risk assessments have been defined and documented; whether such risk assessments are periodically performed; and whether the results are fed back into the security model.
3. Whether a mechanism to deal with non-repudiation of transactions (where external or internal users cannot claim non-performance of a particular function) has been efficiently and effectively implemented.
4. Whether a comprehensive patch and upgrade control system for all servers, operating systems, databases and other critical third-party components has been implemented, except where management has specifically waived this requirement for backwards compatibility; if not a complete list, where patches and upgrades are not performed, be provided.



5. Whether viruses and Trojan horse controls are in place in servers; if not a complete list of servers which do not have viruses or Trojan horse controls be provided.
6. Whether adequate and effective security measures have been implemented to protect source code of all the software applications and databases from unauthorized access, modification, insertion; if not, whether it is possible to identify how, when and by whom such unauthorized access, modification, insertion was made; whether it is possible to add anonymous / camouflaged / untraceable malicious code, in the source code. A complete list of all the software applications and databases which are vulnerable be provided.

### **Expected Deliverables**

The audit should produce a detailed report of the findings for all the evaluations noted above in accordance with international best practices. All identified deficiencies must be supported by evidence and examples and must be classified as minor, substantial or critical on the basis of relative importance. The payments are subject to acceptance of deliverables by Client

### **Qualifications of Firm**

The interested consultants shall be a tax registered national management consultancy firm or an international management consultancy firm compliant with applicable regulations of Pakistan for this procurement and should have been incorporated for at least five (5) years for offering similar services and have completed five (5) similar projects of this scale and complexity and in comparable organizations. Consultant should possess good knowledge of all concepts, principles and approaches required for assignment. 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, the details of such projects will be provided separately as lead or associated consultant.

Should propose adequate approach, methodology & work plan for timely and effective completion of assignment. This particular parameter will be confirmed through a presentation to Client.

Firm should have staff with adequate education, qualification and experience in area IT efficiency reviews. These staff members should possess IT relevant certifications or any other certifications but relevant to the scope of this procurement.

Indicative composition of team which may be proposed by Consultants:

Sr. No	Position	Qualification and Experience	Number
1.	Team Leader/IT Specialist	Masters Degree in any of IT related areas with at least 15 years overall experience with minimum of 5 years specific experience	One
2.	IT Infrastructure Auditor	Masters degree in computer science or business administration or IT administration; and a professional designation (e.g. CISA, CISM, CISSP). Overall experience of 10 years and minimum of 5 years.	One
3	IT Coordinators	Masters degree in computer science or business administration or IT administration; and a professional designation (e.g. CISA, CISM, CISSP). Overall experience of 5 years and minimum of 2 years.	Two

### **Selection Method:**

A consultant will be selected in accordance with the Selection Based on Consultants Qualification method set out in the World Bank's Guidelines: Selection and Employment of Consultant by the World Bank Borrowers

### **Coordination**

For all activities and clarifications under these ToRs the Consultant will coordinate with all relevant wings of FBR and PRAL