

REQUEST FOR **PROPOSAL**

Selection of Consultants for Development of Software FIS/MIS

Pakistan Railways
Headquarters Office,
Lahore.

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Section 1: Invitation for RFP & General Form

No.-----

Dated:-----2021.

**SUBJECT: INVITATION FOR RFP (REQUEST FOR PROPOSAL) FOR
SELECTION OF CONSULTANT FOR DEVELOPMENT OF SOFTWARE
FOR MIS/FIS PROJECR**

1. The Project Director PMU, Pakistan Railways, Headquarters office, Lahore invites Technical and Financial proposals to provide the following services:

**“SELECTION OF CONSULTANT FOR DEVELOPMENT OF SOFTWARE FOR
MIS/FIS PROJECR”**

2. A firm/consortium of consultants will be selected under Quality and Cost Based Selection (QCBS) method as described in this RFP in accordance with PPRA Rule 2004 and PPRA Procurement of Consultancy Services Regulations 2010.

The RFP includes the following documents:

Section 1: Invitation for RFP	1
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Section 6: Standard Form of Contract	
Section 7: Financial Accounting Model, Cost Accounting Model, Accounting Manuals & Business Codes	

Appendix-A: Format of Performance Security Bond

3. It is mandatory for proposals shall be prepared using standard forms of RFP. Any proposal not prepared according to prescribed format may be rejected. If any information required in the Forms is found missing or written elsewhere, no credit will be given in the relevant section of the evaluation.

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4. The Consultant shall submit details of **Five (5)** of their most relevant assignments of similar projects for Technical Evaluation using the prescribed Format. Assignments given beyond the required number may not be considered.
5. CVs of key personnel corresponding to the list given in Data Sheet should provide details of **Five (5)** projects done by each individual in the past.
6. The Consultant can be single entity or Joint Venture / consortium of International and national Consultants.
7. No pre-proposal conference shall be held.
8. The Technical and Financial proposals shall be submitted in separate Sealed Envelopes at the following address not later than -----2021.
9. Conditional proposal will not be considered and will straightway be rejected.

(-----)

Project Director

FIS/MIS Project.

Pakistan Railways Headquarters office,

Empress Road, Lahore

Ph: 042-

E-Mail:

General Information

The Consultant is required to provide following information which is necessary for further processing of the proposal:

1. Whether applied as Single Entity or Joint Venture (please specify):
2. In case of Joint Venture provide the following information along with attached Form **General-1** for all JV partners:

S. No.	Name of JV partners	% share proposed for this assignment
1.	Lead Partner	
2.	Partner No.1	
3.	Partner No.2	
 N	

3. Certificate / affidavit that the Consultant is not blacklisted by any government department / authority National Income Tax number (NTN), in case of JV please provide this information for all partners.(please attach copies of valid registration)
4. Last three years audited reports of accounts of the Consultant.
5. Power of attorney to sign the proposals.
6. Joint Venture/Consortium Agreement in case of JV/Consortium.

Form General-1 – Basic Information

1. Name of Firm / Consultant.
2. Office address.
3. Organization Chart.
4. Telephone & Fax
5. E-mail
6. Contact person
7. Place of incorporation / registration
8. Year of incorporation / registration
9. Type of organization (whether partnership / sole proprietorship / public limited company / private limited company or any other

Note: In case of JV above information should be provided for all partners.

Section 2: Instructions to Consultant

2.1. Definitions

- 2.1.1. "Agreement" means the Agreement signed by the Client and the Consultant and all the attached documents.
- 2.1.2. "Bid(s)" Any and all proposals and bids submitted by the Consultants as a response to this RFP or the amended RFP, that are prepared and submitted in accordance with this RFP or amended RFP and are in compliance of the same.
- 2.1.3. "Bid Price" The consultancy fee for the complete services quoted by the Consultant in its Financial Bid.
- 2.1.4. "Client" means Project Director FIS/MIS, Pakistan Railways, Headquarters office Lahore.
- 2.1.5. "JV/Consortium" means an association of more than one (1) members.
- 2.1.6. "Consultant" means a professional who can study, design, organize, evaluate and manage projects or assess, evaluate and provide specialist advice or give technical assistance for making or drafting policies, institutional reforms and includes private entities, consulting firms, legal advisors, engineering firms, construction managers, management firms, procurement agents, inspection agents, auditors, international and multinational organizations, investment and merchant banks, universities, research institutions, government agencies, nongovernmental organizations, and individuals.
- 2.1.7. "Data Sheet" means such part of the Instructions to Consultant used to reflect Specific Conditions of Contract.
- 2.1.8. "Day" means calendar day.
- 2.1.9. "Close" means the Go Live Operation of Software at ERP level & completing Training Requirements. Thereafter, the maintenance period will come in force. On expiry of maintenance period, the Service Level Agreement (SLA) will become effective.
- 2.1.10. "Government of Pakistan" means The Government of Pakistan and all its associated Departments, Agencies, Autonomous/Semi- Autonomous Bodies, Boards, Universities and similar other organizations.
- 2.1.11. "Instructions to Consultant" means the document which provides Consultant with all information needed to prepare their Proposals.
- 2.1.12. "LOI" means the Letter of Invitation sent by the procuring agency to the Consultant.
- 2.1.13. "Personnel" means professionals and support staff provided by the Consultant to perform the Services or any part thereof.
- 2.1.14. "Proposal" means the Technical Proposal and the Financial Proposal.
- 2.1.15. "Project" means the project of 'ERP level Software for FIS/MIS, including Development, Deployment, Testing, Operation, Training, maintenance (Free maintenance Period) & providing Support Services after enforcement of SLA as prescribed in TORs"
- 2.1.16. "RFP" means the Request for Proposal issued by the Client for the Selection of Consultant.

- 2.1.17. "Terms of Reference" (TOR) means the document included in the RFP as Section Five(5) which explains the objectives, scope of work, activities, tasks to be performed, respective responsibilities of the procuring agency and the Consultant, and expected results and deliverables of the Assignment.
- 2.1.18. "Services" means the work to be performed by the Consultant pursuant to the Agreement.
- 2.2. "Similar Assignment" means**
- a) successful completion of Assignment of ERP level Software, Development, Deployment, Testing, Operation, Training & maintenance including Support services for a certain period beyond Go Live.
 - b) Successful completion of review of Financial Accounting system of any organization, carrying out its matching with New Accounting Model (NAM) of Federal Government (CGA), preparation of Chart of Accounts, Accounting Manuals, Cost Accounting, Managing Financial administration of an organization, preparing Financial Statements, Balance Sheet (Corporate complying IFRAS), Various accounting Statements, Cost Accounting and Auditing of a public sector or at least medium size Private sector organization.
- 2.2.2. The Client named in Data Sheet invites prospective Consultants to submit a Technical Proposal and a Financial Proposal for providing services required for the assignment named in the Data Sheet. The proposals should be in separate marked and sealed envelopes. The Proposal will be the basis for agreement negotiations and ultimately for a signed Agreement with the selected Consultant.
- 2.2.3. Consultant shall familiarize themselves with assignment conditions and consider them in preparing their Proposals. To obtain first-hand information on the assignment, Consultants are encouraged to visit the Client before submitting a proposal.
- 2.2.4. Consultant shall contact the Client's representative named in the Data Sheet to obtain information regarding the assignment. Consultant shall ensure that the concerned official is informed well-ahead of time in case they wish to visit the Client.
- 2.2.5. Consultant shall bear all costs associated with the preparation and submission of their proposals and agreement negotiation. The Client is not bound to accept any proposal, and reserves the right to annul the selection process at any time prior to Agreement award, without thereby incurring any liability to the Consultant.
- 2.2.6. While submitting the Technical Proposal, the composition of the proposed team and task assignment to individual personnel shall be clearly stated.
- 2.2.7. If a Consultant is qualified/selected on the strength of experience of a foreign company, requisite Key Professional Staff from that foreign company shall be fielded along with other Consortium members.
- 2.2.8. In case a firm is proposing Key Professional Staff from educational/research institutions, a 'No Objection Certificate' from the concerned institution shall be enclosed with the CV of such person.
- 2.3. Conflict of Interest**
- 2.3.1. The policy of Government of Pakistan requires that Consultant provide professional, objective, and impartial advice and at all times hold the Client's interest paramount, strictly avoid conflicts with other assignments or their own corporate interests and act without any consideration for future work.

- 2.3.2. Without limitation on the generality of the foregoing, Consultant, and any of their affiliates, shall be considered to have a conflict of interest and shall not be recruited, under any of the circumstances set forth below:

2.4. Conflicting Activities

- 2.4.1. A Consultant that has been engaged by the Client to provide goods, works or services other than financial advisory services for a project, and any of its affiliates, shall be disqualified from providing financial advisory services related to those goods, works or services. Conversely, a Consultant hired to provide financial advisory services for the preparation or implementation of a project, and any of its affiliates, shall be disqualified from subsequently providing goods or works or services other than financial advisory services resulting from or directly related to the Consultant's services for such preparation or implementation.

2.5. Conflicting Assignments

- 2.5.1. A Consultant (including its Personnel) or any of its affiliates shall not be hired for any assignment that, by its nature, may be in conflict with another assignment of the Consultant to be executed for the same or for another Client. For example, a Consultant hired to prepare engineering design for an infrastructure project shall not be engaged to prepare an independent environmental assessment for the same project, and a Consultant assisting a Client in the privatization of public assets shall neither purchase, nor advise purchasers of, such assets. Similarly, a Consultant hired to prepare Terms of Reference for an assignment should not be hired for the assignment in question.

2.6. Conflicting Relationships

- 2.6.1. A Consultant (including its Personnel) that has a business or family relationship with a member of the Client's staff who is directly or indirectly involved in any part of (i) the preparation of the Terms of Reference of the assignment, (ii) the selection process for such assignment, or (iii) supervision of the Agreement, may not be awarded an Agreement, unless the conflict stemming from this relationship has been resolved in a manner acceptable to the Pakistan Railway Freight Transportation Company (PRFTC) throughout the selection process and the execution of the Agreement.
- 2.6.2. Consultant have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to serve the best interest of their Client, or that may reasonably be perceived as having this effect. Failure to disclose said situations may lead to the disqualification of the Consultant or the termination of its Agreement.
- 2.6.3. No agency (except any subsidiary of Pakistan Railway) or current employees of the Client shall work as Consultant under their own ministries, departments or agencies. Recruiting former government employees of the Client to work for their former ministries, departments or agencies is acceptable provided no conflict of interest exists. When the Consultant nominates any government employee as Personnel in their technical proposal, such Personnel must have written certification from their government or employer confirming that they are on leave without pay from their official position and allowed to work full-time outside of their previous official position. Such certification shall be provided to the Client by the Consultant as part of his technical proposal.

2.7. Unfair Advantage

- 2.7.1. If a Consultant could derive a competitive advantage from having provided financial advisory services related to the assignment in question, the Client shall make available to all applicants together with this RFP all information that would in that respect give such Consultant any competitive advantage over competing Consultant.

2.8. Fraud and Corruption

- 2.8.1. PRFTC requires Consultant participating in its projects to adhere to the highest ethical standards, both during the selection process and throughout the execution of an agreement. In pursuance of this policy, PRFTC:

- a) Defines, for the purpose of this paragraph, the terms set forth below as follows:
 - (i) “corrupt practice” means the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the selection process or in agreement execution;
 - (ii) “fraudulent practice” means a misrepresentation or omission of facts in order to influence a selection process or the execution of an agreement;
 - (iii) “collusive practices” means a scheme or arrangement between two or more Consultant with or without the knowledge of the Client, designed to establish prices at artificial, non-competitive levels;
 - (iv) “Coercive practices” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in procurement process, or affect the execution of agreement.
- b) will reject a proposal for award if it determines that the Consultant recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for the agreement in question;
- c) will penalize a Consultant, including declaring the Consultant ineligible, either indefinitely or for a stated period of time, to be awarded a Government of Pakistan agreement if at any time it determines that the Consultant has, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in competing for, or in executing, a Government of Pakistan agreement; and
- d) will have the right to require that a provision be included requiring Consultant to permit the Government of Pakistan to inspect their accounts and records and other documents relating to the submission of proposals and agreement performance, and have them audited by auditors appointed by the Government of Pakistan.
- e) Consultant and their associates shall not be under a declaration of ineligibility for corrupt and fraudulent practices issued by the Government of Pakistan.

2.9. Only one Proposal

- 2.9.1. Each Consultant / JV can submit only one proposal. If a Consultant submits or participates in more than one proposal, all such proposals, in which the Consultant have participated, shall be disqualified.

2.10. Proposal Validity

- 2.10.1. The Data Sheet indicates how long Consultant's Proposals must remain valid after the submission date. During this period, Consultant shall maintain the availability of Professional staff nominated in the Proposal. The Client will make its best effort to complete the selection within this period. Should the need arise; however, the Client may request Consultant to extend the validity period of their proposals. Consultant who agree to such extension shall confirm that they maintain the availability of the Professional staff nominated in the Proposal, or in their confirmation of extension of validity of the Proposal, Consultant could submit new staff in replacement, who would be considered in the final evaluation for agreement award. Consultant who do not agree, have the right to refuse to extend the validity of their Proposals.

2.11. Clarification and Amendment of RFP Documents

- 2.11.1. Consultant may request a clarification of any of the RFP documents up to the number of days indicated in the Data Sheet before the proposal submission date. Any request for clarification must be sent in writing, or by standard electronic means to the Client's address indicated in the Data Sheet. The Client will respond in writing, or by standard electronic means and will send written copies of the response (including an explanation of the query but without identifying the source of inquiry) to all Consultant. Should the Client deem it necessary to amend the RFP as a result of a clarification, it shall do so following the procedure as stated in para below.
- 2.11.2. At any time before the submission of Proposals, the Client may amend the RFP by issuing an addendum in writing or by standard electronic means. The addendum shall be sent to all Consultant and will be binding on them. Consultant shall acknowledge receipt of all amendments. To give Consultant reasonable time in which to take an amendment into account in their Proposals the Client may, if the amendment is substantial, extend the deadline for the submission of Proposals.

2.12. Preparation of Proposal

- 2.12.1. The Proposal, as well as all related correspondence exchanged by the Consultant and the Client, shall be written in the language (s) specified in the Data Sheet.
- 2.12.2. In preparing their Proposal, Consultant are expected to examine in detail the documents comprising the RFP. Material deficiencies in providing the information requested may result in rejection of a Proposal.

2.13. Language:

The Proposal as well as all related correspondence exchanged by the Shortlisted Consultants and the Procuring Agency shall be written in English. However it is desirable that the firm's Personnel have a working knowledge of the national and regional languages of Islamic Republic of Pakistan

2.14. Technical Proposal Format and Content

- 2.14.1. The Technical Proposal shall provide the information indicated in the following paras from (a) to (g) using the attached Standard Forms (Section 3).

- 2.14.2. A brief description of the Consultant's organization and an outline of recent experience of the Consultant (each partner in case of joint venture/Consortium) on assignments of a similar nature are required in Form TECH-2 of Section 3. For each assignment, the outline should indicate the names of Sub-Consultant / Professional staff who participated, duration of the assignment, agreement amount, and Consultant's involvement. Information should be provided only for those assignments for which the Consultant was legally engaged by the Client as a Consultant or as one of the major Consultants within a joint venture. Assignments completed by individual Professional staff working privately or through other consulting Consultants cannot be claimed as the experience of the Consultant, or that of the Consultant's associates, but can be claimed by the Professional staff themselves in their CVs. Consultant should be prepared to substantiate the claimed experience if so requested by the Client.
- 2.14.3. Comments and suggestions on the Terms of Reference including workable suggestions that could improve the quality/effectiveness of the assignment; (Form TECH-3 of Section 3).
- 2.14.4. A description of the approach, methodology and work plan for performing the assignment covering the following subjects: technical approach and methodology, work plan, and organization and staffing schedule. Guidance on the content of this section of the Technical Proposals is provided under Form TECH-4 of Section 3.
- 2.14.5. The list of the proposed Professional staff team by area of expertise, the position that would be assigned to each staff team member, and their tasks (Form TECH-5 of Section 3).
- 2.14.6. CVs of the Professional staff signed by the staff themselves or by the authorized representative of the Professional Staff (Form TECH-6 of Section 3) along with their Computerized National Identity Card numbers.
- 2.14.7. Annual Turnover (Form TECH-7 of Section 3). The annual turnover should be indicated separately for last three years.
- 2.14.8. The Technical Proposal shall not include any financial information. A Technical Proposal containing financial information may be declared non-responsive.
- 2.15. Financial Proposal**
- 2.15.1. The Financial Proposal shall be prepared using the attached Standard Forms (Section 4). It shall list all costs associated with the assignment.
- 2.16. Payment of Services Fee**
- 2.16.1. The amount of remuneration will be claimed/paid as per the relevant clause of Section-5 TOR.
- 2.16.2. The Client shall make all payments to the Consultant in Pak Rupees.
- 2.17. Taxes**
- 2.17.1. The Consultant may be subject to local taxes on amounts payable by the Client under the Agreement. Payment of all taxes shall be the responsibility of the Consultant. In addition to direct payment of taxes the Client will also deduct taxes as stated in the Data Sheet.

2.18. Submission, Receipt and Opening of Proposal

- 2.18.1. The original proposal (Technical Proposal and Financial Proposal) shall contain no interlineations or overwriting, except as necessary to correct errors made by the Consultant themselves. The person who signed the proposal must initial such corrections. Submission letters for both Technical and Financial Proposals should respectively be in the format of TECH-1 of Section 3, and FIN-1 of Section 4.
- 2.18.2. An authorized representative of the Consultant shall sign both the original Technical and Financial Proposals. The authorization shall be in the form of a written power of attorney accompanying the Proposal or in any other form demonstrating that the representative has been duly authorized to sign. The signed Technical and Financial Proposals shall be marked "ORIGINAL".
- 2.18.3. The Technical Proposal shall be marked "ORIGINAL" or "COPY" as appropriate. The Technical Proposals shall be sent to the addresses referred to in Data Sheet and in the number of copies indicated in the Data Sheet. All required copies of the Technical Proposal are to be made from the original. If there are discrepancies between the original and the copies of the Technical Proposal, the original governs.
- 2.18.4. The original and all copies of the Technical Proposal shall be placed in a sealed envelope clearly marked "TECHNICAL PROPOSAL". Similarly, the original Financial Proposal shall be placed in a sealed envelope clearly marked "FINANCIAL PROPOSAL" followed by the name of the assignment, and with a warning "DO NOT OPEN WITH THE TECHNICAL PROPOSAL." The envelopes containing the Technical and Financial Proposals shall be placed into an outer envelope and sealed. This outer envelope shall bear the submission address and title of the Assignment, clearly marked "DO NOT OPEN, EXCEPT IN PRESENCE OF THE OFFICIAL APPOINTED, BEFORE SUBMISSION DEADLINE". The Client shall not be responsible for misplacement, losing or premature opening if the outer envelope is not sealed and/or marked as stipulated. This circumstance may be cause for Proposal rejection. If the Financial Proposal is not submitted in a separate sealed envelope duly marked as indicated above, this will constitute sufficient grounds for declaring the Proposal non-responsive.
- 2.18.5. The Proposals must be sent to the address/addresses indicated in the Data Sheet and received by the Client not later than the time and the date indicated in the Data Sheet, or any extension granted thereof. Any proposal received by the Client after the deadline for submission shall be returned unopened.
- 2.18.6. The Client shall open the Technical Proposal immediately after the deadline for their submission. The envelopes with the Financial Proposal shall remain sealed and securely stored.

2.19. Bid Security Or Performance Security:

- 2.19.1. A Bid submitted by each Consultant must be accompanied by a Bid Security in an amount equal as shall be provided in Data Sheet, in Pakistani Rupees, which shall remain valid for a period of at least ninety (90) days plus twenty-eight (28) days beyond the original bid validity period making it a total of one hundred and eighteen (118) days from the Proposal Deadline.
- 2.19.2. The Performance Security in an amount equal as shall be provided as per Data Sheet, in Pakistani Rupees, only in case the Bid is approved and Contract Agreement is executed. It shall remain valid for a period of at least one hundred & eighty days (180) days from the date of Go Alive. The Performance Security must be in a form and substance as attached hereto as **Annexure 7**.

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- 2.19.3. The Bid Security submitted by the unsuccessful Shortlisted Consultants shall be released to the unsuccessful Shortlisted Consultants upon signing of the Consultancy Services Contract.
- 2.19.4. The Performance Security submitted by the Consultant shall be released achieving of Go Live. before signing of the SLA.
- 2.19.5. No Security in the form of insurance guarantee shall be entertained.
- 2.19.6. Consultant shall be required to provide Performance Security Bond within seven (7) days after signing of Agreement. The Bond shall have an initial validity counted from date of signing if Agreement till Completion period prescribed in Data sheet. Bond shall remain valid till achieving Go Alive. The Consultant will be bound to extend Performance Security Bond as per instruction of Client, given from time to time, till achieving GO Alive. In case of failure, Client shall be entitled to encash the Bond and issuing bank will be bound to encash the Bond in favour of Client as per terms and conditions prescribed in the Bond.
- 2.19.7. The failure of Consultant in not submitting Performance security bond in accordance with clause No. 2.19.6, in annulling of executed Agreement on the risk and cost of Consultant. Client shall not bare any responsibility in this process. Performance security bond shall be returned back to Consultant after achieving of GO Alive.
- 2.19.8. The Bid Security (if prescribed in Data Sheet) may be encashed by the Client in the following circumstances:
- (a) In the case of a successful Consultant, if it fails within the specified times to:
 - ☐ comply with the instructions laid down in the Letter of Acceptance within the time period stipulated therein;
 - ☐ furnish the necessary Performance Security when required;
 - ☐ sign the Consultancy Services Contract;
 - ☐ achieve all the conditions precedents agreed in the signed Consultancy Services Contract.
 - (b) In case the Bid Security expires prior to the date falling ninety (90) days plus twenty eight (28) days beyond the original bid validity period making it a total of one hundred and eighteen (118) days from the Proposal Deadline;
 - (c) In case of an occurrence of Consultant's event of default in terms of the Consultancy Services Contract;

2.20. Basic Eligibility Criteria:

- 2.20.1. Registration with Relevant Revenue Authority and/or relevant tax authority (In case of Consortium, every consortium member firm should provide).
- 2.20.2. The Consultant is not black listed by any Procuring Agency of Government. An affidavit from Consultant shall be signed and submitted with technical proposal (In case of consortium, every Consortium member firm should provide)
- 2.20.3. For a consortium to be eligible for bidding, every consortium member firm should place at least one (1) Key Professional Staff.
- 2.20.4. In case of Consortium, the Consortium Agreement shall be submitted pursuant to clause 2.27.
- 2.20.5. The Consultant have been in business for at least two (2) years. (Attach company/firm registration certificate and articles of incorporation or documents of constitution).

2.21. Proposal Evaluation

- 2.21.1. From the time the Proposals are opened to the time the Agreement is awarded, the Consultant should not contact the Client on any matter related to its Technical and/or Financial Proposal. Any effort by Consultant to influence the Client in the examination, evaluation, ranking of Proposals, and

recommendation for award of Agreement may result in the rejection of the Consultant' Proposal. Evaluators of Technical Proposals shall have no access to the Financial Proposals until the technical evaluation is concluded.

2.22. Evaluation of Technical Proposal

- 2.22.1. The evaluation committee shall evaluate the Technical Proposals on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria, sub- criteria, and point system specified in Evaluation Criteria in Data Sheet and Appendix- I to Data Sheet and each responsive Proposal will be given a technical score. A Proposal shall be rejected at this stage if it does not respond to important aspects of the RFP, and particularly the Terms of Reference or if it fails to achieve the minimum technical score indicated in the Evaluation Criteria.
- 2.22.2. Client will announce the results of Technical Evaluation in accordance with PPRA Rule:48 and shall proceed further as per procedure prescribed in ibid Rule.

2.23. Public Opening and Evaluation of Financial Proposals

- 2.23.1. After the technical evaluation is complete, the Client shall notify in writing to Consultant that have secured the minimum qualifying marks, the date, time and location for opening the Financial Proposals. Consultant's attendance at the opening of Financial Proposals is optional. The opening date shall be set so as to allow interested Consultant sufficient time to make arrangements for attending the opening.
- 2.23.2. Financial Proposals shall be opened publicly in the presence of the Consultant's representatives who choose to attend. The name of the Consultant and the technical scores of the Consultant shall be read aloud. The Financial Proposal will then be inspected to confirm that they have remained sealed and unopened. These Financial Proposals shall be then opened, and the total prices read aloud and recorded.
- 2.23.3. The Evaluation Committee will correct any computational errors. When correcting computational errors, in case of discrepancy between a partial amount and the total amount, or between word and figures, the formers will prevail. The Evaluation Committee shall correct the quantification indicated in the Financial Proposal so as to make it consistent with that indicated in the Technical Proposal, apply the relevant unit price included in the Financial Proposal to the corrected quantity and correct the total Proposal cost.
- 2.23.4. The weightage of Technical and Financial Proposals would be as indicated in Data Sheet.

2.24. Technical Negotiations

- 2.24.1. Technical Negotiations will be held at the address indicated in the Data Sheet. The invited Consultant will, as a pre-requisite for attendance at the negotiations, confirm availability of all Professional staff. Failure in satisfying such requirements may result in the Client proceeding to negotiate with the next- ranked Consultant.
- 2.24.2. Representatives conducting negotiations on behalf of the Consultant must have written authority to negotiate and conclude an Agreement.
- 2.24.3. Technical negotiations will include a discussion of the Technical Proposal, the proposed technical approach and methodology, work plan, and organization and staffing, and any suggestions made by the J/Consultant to improve the Terms of Reference. The Client and the Consultant will finalize the Terms of Reference, staffing schedule, work schedule, logistics, and reporting. These documents will then be incorporated in the Agreement as "Description of Services". Special attention will be paid to clearly defining the inputs and facilities required from the Client to ensure satisfactory implementation of the assignment. The Client shall prepare minutes of negotiations, which will be signed by the Client and the Consultant.

2.25. Availability of Professional Staff / Experts

- 2.25.1. Having selected the Consultant on the basis of, among other things, an evaluation of proposed Professional staff, the Client expects to negotiate an Agreement on the basis of the Professional staff named in the Proposal. Before agreement negotiations, the Client will require assurances that the Professional staff will be actually available. The Client will not consider substitutions during agreement negotiations unless

both parties agree that undue delay in the selection process makes such substitution unavoidable or for reasons such as death or medical incapacity. If this is not the case and if it is established that Professional staff were offered in the proposal without confirming their availability, the Consultant may be disqualified. Any proposed substitute shall have equivalent or better qualifications and experience than the original candidate and be submitted by the Consultant within the period of time specified in the letter of invitation to negotiate.

2.26. Conclusion of the Negotiations

- 2.26.1. Negotiations will conclude with a review of the draft Agreement. To complete negotiations the Client and the Consultant will initial the agreed Agreement. If negotiations fail, the Client will invite the Consultant whose Proposal received the second highest score to negotiate an Agreement.

2.27. Interview/meeting with the professionals of successful Consultant

- 2.27.1. Prior to issuance of Acceptance Letter by the Client the successful Consultant may be asked to bring his team in the office of the Client for discussion and assurance of availability of professionals. The professional may be asked to describe his experience.
- 2.27.2. In case the key professionals, proposed by the Consultant fail to attend the meeting, the proposal can be rejected besides taking action against the Consultant.
- 2.27.3. In case the proposal of highest ranked Consultant is rejected on this account, the Client shall be at liberty to approach second highest ranked Consultant for carrying out this assignment.

2.28. Award of Agreement

- 2.28.1. After completing negotiations, the Client shall award the Agreement to the selected Consultant and publish details on the website. The agreement will be executed based on Standard Format of Pakistan Engineering Council (PEC) for large projects (Lump Sum Based).

2.29. Confidentiality

- 2.29.1. Information relating to evaluation of Proposals and recommendations concerning awards shall not be disclosed to the Consultant who submitted the Proposals or to other persons not officially concerned with the process, until the publication of the award of Agreement. The undue use by any Consultant of confidential information related to the process may result in the rejection of its Proposal and may be subject to the provisions of the guidelines relating to fraud and corruption.

2.30. JV/Consortium Agreement

- 2.30.1. In case of Consortium of firms, the proposal shall be accompanied by a certified true copy of the **JV/Consortium Agreement**. The Consortium Agreement as applicable shall confirm the following therein:

- (i) Date and place of signing;
- (ii) Purpose of Consortium (must include the details of contract works for which the consortium has been invited to bid);
- (iii) A clear and definite description of the proposed administrative arrangements for the management and execution of the assignment;
- (iv) Delineation of duties, responsibilities and scope of work to be undertaken by each along with resources committed by each partner/member of the Consortium for the proposed services;
- (v) An undertaking that the firms are severally liable to the Client for the performance of the services;
- (vi) Duties, responsibilities and powers of the lead firm;
- (vii) The authorized representative of the Consortium.

- 2.30.2. In case of JV/Consortium, it is expected that the lead partner would be authorized to incur liabilities and

to receive instructions and payments for and on behalf of the consortium. For a consortium to be eligible for bidding, the experience of lead partner and other partner should be indicated.

- 2.30.3. Any alternative proposal, such as one by a firm in sole capacity and another in JV/Consortium with another firm or as a part of 2 or more consortiums, for the assignment will be summarily rejected. In such an event, all the proposals submitted by such firm and its Consortium or associate shall be rejected.
- 2.30.4. The proposal of a firm is liable to be rejected if the firm makes any false or misleading statement in the proposal(s) without prejudice to the rights of the Client to initiate further proceedings against the said firm(s).
- 2.30.5. Notwithstanding anything to the contrary contained in this RFP, the detailed terms specified in the draft Contract agreement shall have overriding effect; provided, however, that any conditions or obligations imposed on the Bidder hereunder shall continue to have effect in addition to its obligations under the Contract.

2.31. Integrity Pact

- 2.31.1. The successful Bidder shall sign and stamp the Integrity Pact, as per Standard Format of Pakistan Engineering Council (PEC), in case contract value exceeds Pak Rs. 10.000 Million.

2.32. Time for Completion

- 2.32.1. Time for completion of the assignment shall be as specified in the Data Sheet.

INSTRUCTIONS TO CONSULTANT

DATA SHEET

Paragraph Reference	Description
2.2.1	<p><u>Name of the Client:</u> PD/FIS/MIS, Pakistan Railway Headquarters office Lahore Ph: 042-36859955, Email: -----</p> <p><u>Method of selection:</u> QCBS (Quality and cost based Selection) in accordance with PPRA Rule 2004 and PPRA Procurement of Consultancy Services Regulations 2010.</p>
2.2.1	<p>Name of the assignment is: “SELECTION OF CONSULTANTS FOR DEVELOPMENT OF SOFTWARE FOR FIS/MIS PROJECT”</p> <p>Financial Proposal to be submitted together with Technical Proposal, however, both should be in separate sealed envelope clearly marked with name of Assignment and Consultant.</p>
2.2.2	<p>Pre-proposal conference shall be held as per following schedule: No Pre-proposal conference is scheduled:</p>
2.2.3	<p>Mr. Muhammad Hafeez Ullah, Pakistan Railway Headquarters office, Lahore. Ph:-----, Email: -----</p>
2.10.1	Proposals must remain valid for ninety (90) days after the submission date
2.11.1	Clarifications may be requested not later than seven (7) days before the submission date.
2.12.1	Proposals shall be submitted in the following language: English.
2.14.2 2.1,18	<p>For the purpose of IT related Experience, to the extent of DBA, Networking & Hardware, the Firm can claim the Experience of its regular Employee as firm's own experience also.</p> <p>For the purpose of Accounts related Experience, the Firm can claim the Experience of its regular Employee as its own Experience also</p>
2.16.1	Withholding / Advance Income Tax will be deducted as per prevailing government rules. It will be exclusively Consultant's responsibility to include all applicable Federal, Provincial or City taxes / fees & levies in the Financial Proposal

2.17.3	Consultant must submit one original and two (2) copies of the Technical Proposal and the original of the Financial Proposal.
2.17.5	The Proposal submission address is: Project Director , Pakistan Railway Headquarters office, Empress Road, Lahore Ph: 042-----

Paragraph Reference	Description
	Proposals must be submitted not later than the following date and time: On or before ----- not later than -----
2.19.1	Bid Security is not Required/applicable for this Assignment
2.19.2	Performance security Bond shall be submitted amounting @ 10% of Contract Agreement cost for this Assignment _____
2.32	Completion period for this Assignment is twenty-two (22) Months. However, the completion of prescribed phases and individual activities will be also binding as either prescribed in this RFP OR would be prescribed in the Contract Agreement after negotiations.

2.19.3	<u>Criteria, sub-criteria, and point system for the evaluation are as under:-</u>	
	<u>(Technical Proposal)</u>	
	(i) Company Profile:	25%
	(ii) Project Team:	25%
	(iii) Approach & Methodology:	50%
	<u>Description</u>	<u>Points</u>
	(i) <u>Company Profile:</u>	[100]
	a) Number of similar assignments	[70]
	b) Organizational structure	[10]
	c) Financial Capability	[20]
	Total = A ₁	
	(ii) <u>Project Team:</u>	[100]
	S.N	Position
	1	ERP level Software Development Expert (Team Leader/PM)
	2	Financial Accounting Expert (Advising & Management)
	3	Financial Accounting Expert (Auditing)
	4	Cost Accounting Expert
	5	Senior Computer/IT Expert (ERP level Software Development)
	6	Senior Computing/IT Expert (Data Base Management)
	7	Senior Computer/IT Expert (Software Deployment/Testing)
	8	Senior Computer/IT Hardware Expert [Client (Data center), Server (user)]
	9	Senior Computer/IT Net- work Expert
	Total = 100	
	Qualification = 40 Experience = 60	
	(iii) <u>Approach & Methodology:</u>	[100]
	a) Understanding & Innovativeness	[20]
	b) Methodology & Work plan	[80]
	Total = A ₃	
2.19.4	$\text{Technical Score} = \frac{A_1[40]}{100} + \frac{A_2[40]}{100} + \frac{A_3[20]}{100}$ <p>The minimum technical score (St) required to pass is: 70 Points</p> <p><i>Further details of Evaluation Criteria are described in Appendix -I to Data Sheet</i></p>	

Paragraph Reference	Description
2.20	<p>Technical=80%</p> <p>Financial = 20%</p> <p>The formula for determining the financial scores is as following: $S_f = 100 \times F_m / F$</p> <p>S_f = The financial score</p> <p>F_m = The lowest price</p> <p>F = The price of the proposal under consideration.</p>
2.20.1	<p>Address for Technical negotiations:</p> <p>Project Director, Pakistan Railway Headquarters office, Empress Road, Lahore</p> <p>Ph: 042-----</p>
2.32.1	<p>Phase-I:</p> <ol style="list-style-type: none"> Completion of Financial & Cost Accounting activities as detailed in RFP and included in the Contract Agreement RFP of Hardware supply and Installation for public advertisement will be completed, as detailed in this RFP and included in the Contract Agreement. <p>Phase-II:</p> <ol style="list-style-type: none"> Completion Period for prescribed activities as per agreed Time line, as would be included in this Contract Agreement shall also be binding upon Consultant, irrespective of the complete assignment of the "completion period". Consultant shall be responsible for generating "Financial Statements, Balance Sheet, Appropriation Accounts & Public Account" from the final Deployed Software, which will be submitted to CGA (Controller General Accounts) and AGP (Auditor General of Pakistan) by PR relevant office. Consultant shall be responsible to help rectify any observations of CGA or AGP. Consultant shall be responsible for making necessary required changes in the Developed Software to avoid regeneration of any objected statement/account. Go Alive certificate shall be issued by Client after ensuring the execution of all required changes/amendments. The Free (of Cost) maintenance period shall take effect from the date of issuing of Go Alive Certificate by Client. The duration of the Free (of Cost) maintenance period shall be six (6) months counted from the day of its start as prescribed in sub-para (f).

Details of Evaluation Criteria**1. Mandatory Requirements**

As a mandatory requirement Consultant must have completed at-least two assignment of “Similar Assignments”. Any Consultant not fulfilling the said requirement will be technically disqualified.

(1) Company Profile (100Marks)**a) Number of similar assignments (70 Marks)**

Two Project	= 0%
Three Project	= 80%
Four Project	= 90%
Five Project	= 100%

In case of sub-consultants or JV partners engaged then this shall be assessed collectively based on the sub-consultant or JV basis.

b) Organizational structure (10 Marks)

Excellent = 100%, Good = 80%, Satisfactory = 60%

c) Financial Capabilities (20 Marks)

Annual Turnover (Pak Rs in Million) (Avg of last three years shall be considered)	
More than or equal to 1500	= 100%
More than or equal to 1000 but < 900	= 80%
More than or equal to 900 but < 800	= 60%
Less than 800	= 0%

(2) Project Team

For minimum qualification and experience of project team please refer to Appendix- II to Data Sheet. Each member of Consultant's team will be evaluated on the following criteria:

i) Education (40%)

Professional having qualification less than as specified in Appendix-II shall not be considered for evaluation. Equivalent qualification shall only be considered if it is nationally/internationally recognized as equivalent.

PHD or Equivalent	= 100%
MSc or Equivalent	= 90%

ii) **Experience of Individual Professionals(30%)**

Where minimum required experience is 15years

20 years or more = 100%
15 to < 19 years = 90%
Less than 15 years = 0% (Staff will not be considered for evaluation)

Where minimum required experience is 10years

15 years or more = 100%
10 to < 15 years = 90%
Less than 10 years = 0% (Staff will not be considered for evaluation)

In case of sub-consultants or JV/Consortium, professional of sub-consultant or JV/consortium partner will be considered for evaluation.

iii) **No. of assignments completed by Professional (30%)**

Five or more = 100%
4 assignments = 90%
3 assignments = 80%
2 assignments = 70%
Less than two = Zero

(3) **Approach & Methodology**

Methodology submitted by Consultant will be analyzed by evaluating team in accordance with criteria stated above and graded as under:

Quality	Grade	Weight
Excellent	A	100%
Good	B	70%
Average	C	50%
Below average/ Absent	D	0

- (4) **Suitability for Transfer of Knowledge (training) = 10 Marks**
(5) **Technical Support Capabilities (SLA) = 05 Marks**

Methodology will be analysed based on following:

a) Understanding & Innovativeness (25 Marks)

- i). What is the depth of the Consultant's understanding of the requirements and objectives of the consultancy assignment?
- ii) What is the quality of the improvements to the TOR suggested by the Consultant to improve the outcome of the assignment?
- a) What is the level of identification of potential risks that will affect the execution of the assignment, and what is the quality of the mitigation strategies proposed?

b) Methodology & Work plan (75 Marks)

- i) How in-depth is the Statement of Work: does it fully cover the scope of the assignment and is it sufficiently developed to ensure assignment completion?
- ii) How developed is the Work Breakdown Structure (WBS) for the assignment?
- iii) How suitable is the Work Plan (staffing schedule): is the resource utilization sufficient and practical?

Appendix-II to Data Sheet

Team

S.N	Position
1	ERP level Software Development Expert (Team Leader/PM)
2	Financial Accounting Expert (Advising & Management)
3	Financial Accounting Expert (Auditing)
4	Cost Accounting Expert
5	Senior Computer/IT Expert (ERP level Software Development)
6	Senior Computing/IT Expert (Data Base Management)
7	Senior Computer/IT Expert (Software Deployment/Testing)
8	Senior Computer/IT Hardware Expert [Client (Data center), Server (user)]
9	Senior Computer/IT Net- work Expert

1- Qualification & Experience of the professional is specified below for evaluation

S. #	Position	Min. Qualification	Min. Experience
1.	ERP level Software Development Expert (Team Leader/PM)	MS Computer Sciences or Engineering /MIT	15 years (Of which minimum five (5) years in development of ERP Level Software for a Public Sector Or Multinational organization as Team Leader/Project Manager)
2.	Financial Accounting Expert (Advising & Management)	CA or CMA or CFA or ACCA	15 years (Of which minimum five (5) years experience as Team Leader/Managing Director) Finance of a Public Sector

Selection of Software Consultant for FIS/MIS

			Or Multinational organization
3.	Financial Accounting Expert (Auditing)	CA or CMA or CFA or ACCA	15 Years (Of which minimum five (5) years experience as Team Leader/Managing Director) Auditing of a Public Sector Or Multinational organization
4.	Cost Accounting Expert	CA or CMA or CFA or ACCA	15 Years (Of which minimum five (5) years experience as Team Leader/Managing Director) Cost Management of a Public Sector Or Multinational organization
5.	Senior Computer/IT Expert (ERP level Software Development)	MS Computer Sciences or Engineering /MIT	10 years
6.	Senior Computing/IT Expert (Data Base Management)	MS Computer Sciences or Engineering /MIT	10 years
7.	Senior Computer/IT Expert (Software Deployment/Testing)	MS Computer Sciences or Engineering/MIT	10 years
8.	Senior Computer/IT Hardware Expert [Client (Data center), Server (user)]	MS Computer Engineering /MIT	10 years
9.	Senior Computer/IT Net- work Expert	MS Computer Engineering /MIT	10 years

Selection of Software Consultant for FIS/MIS

1. Minimum qualification has been quoted for the guidance of the Consultants. However, Consultant can quote any other relevant degree as per norms of the country from where such degree has been obtained and it would be considered if found appropriate.
2. Similar project has been defined under definitions for the purpose of comparison of the projects completed by the Firm / Consultant. However, for professionals, the similar assignment shall be as per their respective field of specialization.

Section 3: Technical Proposal – Standard Forms

Consultant is required to prepare Technical Proposal as per following format: TECH-1

Technical Proposal Submission Form

TECH-2 Consultant's Organization and Experience

A Consultant's Organization

B Consultant's Experience

C International Experience

TECH-3 Comments or Suggestions on the Terms of Reference.

TECH-4 Description of the Approach, Methodology and Work Plan for Performing the Assignment

TECH-5 Composition of Team to be deployed for this assignment

TECH-6 Curriculum Vitae (CV) of Proposed Professional Staff

TECH-7 Staff Schedule

TECH-8 Project Plan with Time Line

TECH-9 Financial Capabilities

FORMTECH-1 TECHNICAL PROPOSAL SUBMISSION FORM

(Please submit on Company's Letterhead)

To: **Project Director,**
FIS/MIS (PMU) Pakistan Railway Headquarters Office,
Empress Road, Lahore,
Pakistan Ph: 042-----

Subject: **"INVITATION FOR RFP (REQUEST FOR PROPOSAL) FOR SELECTION
OF CONSULTANT FOR DEVELOPMENT OF SOFTWARE FOR MIS/FIS
PROJECT".**

Dear Sir,

We, the undersigned, offer to provide the subject services in accordance with your Request for Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal, and a Financial Proposal sealed under separate envelopes.

We are submitting our Proposal in association
with: _____ *[Insert a list with full name and address of each
associated Consultant]*

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

If negotiations are held during the period of validity of the Proposal, we undertake to negotiate on the basis of the proposed staff. Our Proposal is binding upon us and subject to the modifications resulting from Agreement negotiations.

We undertake, if our Proposal is accepted, to initiate the consulting services related to the assignment not later than the date indicated in the Data Sheet of the proposal.

We understand you are not bound to accept any Proposal you receive. We remain, Yours sincerely,

Authorized Signature *[In full and initials]*: _____

Name and Title of Signatory: _____

Name of Firm: _____

Address: _____

FORMTECH-2: CONSULTANT'S ORGANIZATION AND EXPERIENCE

A -Consultant's Organization

Please provide the following information for your firm/entity and each associate for this assignment

1. Consultant's Background and Achievements
2. Organogram.
3. List of professional Staff with Qualification and Experience.

**FORMTECH-2: CONSULTANT'S
EXPERIENCE****ORGANIZATION****AND****B - Consultant's Experience**

[Using the format below, provide information on each assignment for which your firm, and each member or associate for this assignment, was legally contracted as a corporate entity or as one of the major companies within an association, for carrying out the Project similar to the ones requested under this Assignment.]

[Similar project will be taken as an aggregate of all JV/Consortium members. For example, even, if a member has executed a particular part of IT related work, such as Software Development, Deployment, Testing, Training etc and other member has executed in respect of Hardware and another have experience in Database Administration, yet another in Networking, the aggregate will be treated as a single work. Similarly, an Expert of member has experience of Financial Accounting Administration, other in Cost Accounting and other in Auditing, that will be treated as Single "Project" A Consortium/JV having one aggregate work of IT related part and other having experience Financial Services related work, all aggregated experience will jointly and severally constitute & fulfil the definition of "similar to the ones requested under this Assignment" as prescribed against the head of Section-2 "Definitions"]

Assignment name:	Value of the Project (in Pak Rs or US\$):
Country: Location within country:	Duration of assignment (months):
Name of Client:	
Start date(month/year): Completion date (month/year):	Value of consultancy services provided by your firm under the agreement (in Pak Rs or US\$):
Name of associated Consultant, if any:	Percentage of input provided by associated Consultant:
Name of senior professional staff of your firm involved and functions performed(indicate most significant profiles such as Project Director/Coordinator, Team Leader):	
Narrative description of Project:	

Selection of Software Consultant for FIS/MIS

Description of actual services provided by your staff within the assignment:

FORM TECH-3 COMMENTS OR SUGGESTIONS ON THE TORs

(Client is not bound to accept the suggestions provided by the Consultant . The Consultant is requested not to include any financial impact of the suggestions in the Financial Proposal.

Any claim on this account shall not be accepted at the stage of evaluation or after award of contract)

FORMTECH-4 **DESCRIPTION OF APPROACH, METHODOLOGY AND WORK PLAN FOR PERFORMING THE ASSIGNMENT**

[Technical approach, methodology and work plan are key components of the Technical Proposal. You are suggested to present your Technical proposal divided into the following three chapters:]

- a) Technical Approach and Methodology,
- b) Work Plan
- c) Organization and Staffing

a) Technical Approach and Methodology.

In this chapter you should explain your understanding of the objectives of the assignment, as per Term of Reference (TOR) approach to the services, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. You should highlight the problems being addressed and their importance, and explain the technical approach you would adopt to address them. You should also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach.

b) Work Plan.

In this chapter you should propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones, constraints (including interim approvals by the Client), and delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents, including reports, drawings, and tables to be delivered as final output, should be included here.

c) Organization and Staffing.

In this chapter you should propose the structure and composition of your team. You should list the main disciplines of the assignment, the key experts responsible, and proposed technical and support staff.

FORMTECH-5

**COMPOSITION OF PROFESSIONAL STAFF
TEAM TO BE DEPLOYED FOR THIS
ASSIGNMENT**

Name of Staff	CNIC / Passport No.	Firm	Area of Expertise	Position Assigned

FORM TECH-7

STAFFING SCHEDULE

Months (in the Form of Bar Chart)

 **Full Time**
 **Part Time**

S. No.	Name of Professional	Position	Report Due/ Activities	Months										Number of Months
1														Sub-Total (1)
2														Sub-Total (2)
3														Sub-Total (3)
4														Sub-Total (4)
...														
....														

1. For Professional Staff the input should be indicated individually; for Support Staff it should be indicated by category (e.g: draftsmen, clerical staff, etc.).
2. Months are counted from the start of the assignment. For each staff indicate separately staff input for home and field work.
3. Field work means work carried out at a place other than the Consultant's home office.

FORMTECH-8 WORK SCHEDULE

S. #	Activity ¹	Months												
		1	2	3	4	5	6	7	8	9	10	11	12	n
1														
2														
3														
4														
5														
N														

1. Indicate all main activities of the assignment, including delivery of reports (e.g. inception, interim, and final reports), and other benchmarks such as line department approvals. For phased assignments indicate activities, delivery of reports, and benchmarks separately for each phase.
2. Duration of activities shall be indicated in the form of a bar chart.

FORMTECH-9 FINANCIAL CAPABILITIES

Financial Capabilities (in Million Pak Rs) as per the latest completed year's audited accounts:

1. Total Assets =
2. Total Liabilities =
3. Reserves =
4. **Annual Turnover**

For the year (in Million Pak Rs)		
2016-17	2017-18	2018-19

For assessment purpose Max turnover of last three years shall be considered
(in case of joint venture please provide above information for all partners and
collective turnover of corresponding year shall be considered)

Section 4: Financial Proposal- Standard Forms

Financial Proposal Standard Forms shall be used for the preparation of the Financial Proposal.

FIN-1 Financial Proposal Submission Form

FIN-2 Summary of Costs

FORM FIN-1 FINANCIAL PROPOSAL SUBMISSION FORM

(Please submit on Company's Letterhead)

To: **Project Director,**
FIS/MIS (PMU) Pakistan Railway Headquarters Office,
Empress Road, Lahore,
Pakistan Ph: 042-----

Subject: **“INVITATION FOR RFP (REQUEST FOR PROPOSAL) FOR SELECTION
OF CONSULTANT FOR DEVELOPMENT OF SOFTWARE FOR MIS/FIS
PROJECT”.**

Dear Sir,

We, the undersigned, offer to provide the services for subject assignment in accordance with your Request for Proposal and our Technical Proposal. Our attached financial proposal of the sum of _____ *[Insert amount (s) in words and figures]*. This amounts inclusive of all applicable taxes.

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Agreement negotiations, up to expiration of the validity period of the Proposal.

No commission so gratuities have been or are to be paid by us to agents relating to this Proposal and Agreement execution.

We understand you are not bound to accept any Proposal you receive. We remain,

Yours sincerely,

Authorized Signature *[In full and initials]*: _____

Name and Title of Signatory: _____

Name of Firm: _____

Address: _____

FORMFIN-2 SUMMARY OF COSTS

Description	Amount (Pak Rupees)	
	In Figure	In Words
Phase I: Technical & Financial Feasibility Study: 70%		
Phase II: Transaction Negotiation & Financial Close 30%		
Phase III: Free (of cost) Support services against SLA for three years (Total cost of three years shall be quoted)		
Grand Total		

Note:

1. Cost of services should be inclusive of all applicable taxes, overheads and any other cost required to complete the assignment as per TOR.
2. Any tax imposed by the government after submission date of RFP shall be paid separately to Consultant, in addition to accepted Financial Proposal.
3. No escalation shall be payable during the services.
4. Payments against Phase III shall be made in three equal instalments at the end of completion of one-year support period of SLA.

(Name & Designation)

Authorized Signature on behalf of Consultant

Operational Acceptance Certificate

Date: [insert: **date**]

Contract: [insert: **name of System or Subsystem and number of Contract**]

To: [insert: **name and address of Consultant**]

Dear Sir or Madam:

Pursuant to Technical Requirements (Commissioning and Operational Acceptance) of the Contract entered into between yourselves and the [insert: **name of Purchaser**] (hereinafter the "Purchaser") dated [insert: **date of Contract**], relating to the [insert: **brief description of the Information System**], we hereby notify you the System (or the Subsystem or major component identified below) successfully completed the Operational Acceptance Tests specified in the Contract. In accordance with the terms of the Contract, the Purchaser hereby takes over the System (or the Subsystem or major component identified below), together with the responsibility for care and custody and the risk of loss thereof on the date mentioned below.

1. Description of the System (or Subsystem or major component): [insert: **description**]
2. Date of Operational Acceptance: [insert: **date**]

This letter shall not relieve you of your remaining performance obligations under the Contract nor of your obligations during the Warranty Period.

For and on behalf of the Purchaser

Signed:

Date:

in the capacity of: [state: **"Project Manager" or higher level authority in the Purchaser's organization**]

Installation Certificate

Date: [insert: **date**]

Contract: [insert: **name and number of Contract**]

To: [insert: **name and address of Consultant**]

Dear Sir or Madam:

Pursuant to Technical Requirements of the Contract entered into between yourselves and the [insert: **name of Purchaser**] (hereinafter the "Purchaser") dated [insert: **date of Contract**], relating to the [insert: **brief description of the Information System**], we hereby notify you that the System (or a Subsystem or major component thereof) was deemed to have been correctly installed on the date specified below.

1. Description of the System (or relevant Subsystem or major component: [insert: **description**]
2. Date of Installation: [insert: **date**]

Notwithstanding the above, you are required to complete the outstanding items listed in the attachment to this certificate as soon as practicable. This letter shall not relieve you of your obligation to achieve Operational Acceptance of the System in accordance with the Contract nor of your obligations during the Warranty Period.

For and on behalf of the Purchaser

Signed:

Date:

in the capacity of: [state: **"Project Manager"** or state **the title of a higher level authority in the Purchaser's organization**]

Service Level Agreement - Guidelines

The software consultant will provide a Service Level Agreement (SLA) as part of the software implementation contract. The SLA will cater to the following:

- Service Goals
- Definition of terms
- Service delivery elements
- Escalation procedures
- Telephone, Web and Email response times
- First contact resolution by the Support Center
- Reporting methods
- SLA contract period

Service Goals

Clearly state which goals are being addressed and why. Should be able to resolve 100% of all severity level 1 and 2 cases in the timeframe specified. List the severity levels and the time the case should be responded to and the time it should be resolved.

Definition of terms

Define terms to the lowest common level. Be as specific as possible.

Service delivery elements

1. **Service coverage times.** State clearly what business hours are supported and what is supported after hours.
2. **Environment(s) included.** What do you cover? If you only support standard items, be sure to state it here.
3. **Environments excluded.** If the Support Center will take cases for non-standard items and will charge back costs to the customer, then list that here.
4. **Specific applications and network services coverage.** List specific applications by name, the times they are supported and the times they are not supported. If there are maintenance windows for databases and servers when they will not be available, then make sure to list these windows.
5. **Methods for requesting service.** State clearly how level 1 and 2 cases will be handled. Through which medium and how will it be documented.
6. **Customer responsibilities.** State clearly how to submit a request, what standards are supported, and when customers should be available for the technical support team.
7. **Service tracking and reporting procedures.** Some examples are: Customer Support will log 100% of all requests, phone calls will be randomly recorded for quality and performance metrics will be posted on a regular basis.

Escalation procedures.

State the escalation path and time for each severity level.

Telephone, Web and Email response times.

Examples: Phone requests will be answered in less than 20 seconds, Web requests within 30 seconds and email within four hours.

First contact resolution by the Support Center.

Example: The Support Center will resolve at least 70% of all cases it receives within a certain timeframe.

Reporting methods.

- Weekly management reports
- Monthly performance metrics
- Customer Satisfaction Surveys results

SLA contract period.

- When the current draft is effective
 - When it will be reviewed

SECTION 5

Terms of Reference

**Technical Requirements
(including Implementation Schedule)**

DRAFT

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Technical Requirements for Information System

A. BACKGROUND

1.1 Pakistan Railways

- 1.1.1 The government of Pakistan wishes to revitalize the performance of the Railway in Pakistan so that it plays its rightful role within the transport sector and supports fully the expected economic and social development of the country. Many steps are being taken in this respect. One of such step is to carry out the automation of Railway's functions. Among such measures, it has been decided to develop an ERP software for the Financial System Functions & Transactions to integrate all the Financial Information of all functionaries (Executive Departments) of Railways in such a meaningful manner that it shall conform to the New Accounting Model (NAM) & International Financial Reporting Standards (IFRS), since adopted by Federal Government Departments and as per International Accounting Standards (IAS). Besides, the ERP shall be developed in a manner that it could manipulate & processes the Data Base to develop a meaningful Management Information System (MIS) to facilitate the commercial oriented decision support system (DSS) at each level of administration. All the developed modules by Consultant shall work integrally as per requirement of an ERP. The FIS/MIS project is being executed to achieve this objective effectively and to adopt a lines of business approach.

Following Reports have been developed through this project after reviewing existing systems for achieving compliance with NAM & IFRS after determining mismatch and carrying out Gap Analysis for orientation of commercial line of business approach;

- Financial Accounting Model;
- Cost Accounting Model;
- Accounting Manuals (23 No.)
- Business Codes (6 No.)

Objectives of RFP:

- 1.2.1 Pakistan Railways appointed consultants for development of a Financial Information System and Management Information System (FIS / MIS) to achieve the objective explained in Para 1.1.1. As part of the assignment the consultants have developed design document for Development of ERP Software for implementation of FIS / MIS in their Reports. These reports are attached as Section-7 of this RFP documents and shall be strictly treated as part of TOR. Consultant shall carefully study these reports and coding system for an objective implementation in the proposed ERP.
- 1.2.2 During the process explained in para 1.2.1, after determining mismatch & review of ongoing accounting system the new Chart of Accounts (COA) were developed. New Accounting Manuals have been developed as per renewed COAs. The Business codes have been revised as per existing business model structure. In the end Financial & Cost Accounting Model have been developed along with designing coding in line with the requirements of NAM. Thereafter, Business Flow Diagrams, Logical Flow Diagrams and Entity Relationship Diagrams have been documented to facilitate the digitization & computerization of complete Accounting

Model into a ERP level Software, which also support a Management Information system (MIS). However due to certain reasons, the BFD, LDF & ERD could not be developed for "Revenue" related activities. The coding of "Revenue" is deficient in subsidiary level. As a result, a comprehensive cost Accounting also cannot be generated through proposed ERP Software.

- 1.2.3 Now, it is required that the let over part of work on "Revenue" related activities is completed at the first stge. The deficient work is as explained in para 1.2.2. However, just to emphasize, it is reiterated that mismatch review (from NAM & IFRS), COA, Financial Accounting Model and Business code of "Revenue" is complete and is being accompanied with this RFP. ***The balance work relates to work some "Requirement gathering", "carrying out of some left over subsidiary coding" and development of "Business Flow, Logical Data Flow & Entity Relationship Diagrams" of "Revenue" related activities. Some cost Drivers are also to be designed to work the Cost Accounting System comprehensively.***
- 1.2.4 All the work narrated in Para 1.2.2 & 1.2.3 was carried out in year 2009-10. Therefore, the available Data (collected at that time) is now not applicable. **It needs a complete overhauling and renewal by taking the Data as would be existing at the time of Development of ERP Software.** This review will be extensive and some Data is spread all over the system. It pertains to almost every section, such as Stocks (Depot inventory), procurement, moving (rolling Stock) & fixed Assets (lands, buildings), Human Resources (Serving & retired Employees), Bills receivable, Bills payables, advances, investments, Debts, Borrowings, Projects etc etc.
- 1.2.5 The other important sector is the Assets re-valuation and application of Depreciations to bring them at their value. Although most of this Data is available in soft form on CDs with valuation and depreciation tables on Excel Sheets, **yet it requires a thorough overhauling.**
- 1.2.6 **The last activity is the review of six Business codes** to document any change business flow pattern or any Form. Although a very few changes are expected in this arena, yet it will be appropriate to confirm that there is no change and to document if there is any change. This might necessitate (though very rare) change in Diagrams.
- 1.2.5 **A period of four (4) months is provided to complete all the above Finance, Data & Business related activities**

Pakistan Railways intends to procure the development of ERP Software according to the design documents so developed and after carrying out other defined documentation.

1.3 Acronyms Used in These Technical Requirements

- 1.3.1 A detailed list of Acronyms used in this document is included in Annexure – 1 (list of acronyms)

B. BUSINESS FUNCTION AND PERFORMANCE REQUIREMENTS

2.1 Business Requirements to Be Met by the System

- 2.1.1 The business requirements of Pakistan Railways for ERP software have been documented and are elaborated with TOR as Appendix-A, duly explained in Para 1.1.1. The system

shall accommodate the requirements to fully implement the information documented in the documents of Section-7. Any additional Documents framed as per Para 1.2.3 to 1.2.6 shall be appended with that provided in Section-7. The system shall be fully capable to process and manipulate the Data Base to develop a MIS, as prescribed in the combined documents of Section-7.

- 2.1.2 The proposed software solution should strictly comply with Pakistan Railways Design Documents which have been developed after study and gap analysis of the existing systems. No business process re-engineering is allowed.
- 2.1.3 The firm shall give confirmation in writing that it accepts responsibility for the successful integration and inter-operability of all components of the information system as required by this RFP (TOR) including various reporting requirements in accordance with Pakistan Railways Design Documents and requirements as mentioned in para no.2.1.2.

2.2 Functional Performance Requirements of the System

- 2.2.1 The required system when deployed will cater to all concurrent users entering Data simultaneously as listed in Annexure – 3 (Hardware specification guidelines document)
- 2.2.2 The Consultant's obligations cover the provision of all Information Technologies, Materials and other Goods (as would be required for development of ERP Software) as well as the performance of all Services required for the Design, Development, and Implementation (including, quality assurance, Delivery, Pre-commissioning, Installation, Testing, Commissioning and imparting Training) of the System, in accordance with the plans, procedures, specifications, drawings, codes, and any other documents specified in the Contract and the Agreed and Finalized Project Plan.

The Consultant shall, unless specifically excluded in the Contract, perform all such work and / or supply all such items and Materials not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining Operational Acceptance of the System as if such work and / or items and Materials were expressly mentioned in the Contract, except supply & installation of Hardware.

Client will appoint another firm for the supply & installation of Hardware through separate & unique contract, which supply and installation will run parallel with the ERP Software Development. The Consultant shall achieve installation of the Developed ERP Software on the installed Hardware by supplier along with Operational Acceptance of the System (or Subsystem(s) where a separate time for Operational Acceptance of such Subsystem(s) is specified in the Contract or Project Plan) within the time specified in the Data Sheet and in accordance with the time schedule specified in the Implementation Schedule in the Technical Requirements Section and any refinements made in the Agreed and Finalized Project Plan, or within such extended time to which the Supplier shall be entitled (Extension of Time for Achieving Operational Acceptance)

2.3 Related Information Technology Issues and Initiatives

2.3.1 Consultant shall inspect before submission of financial proposal at his own responsibility the module of pension disbursements, and detail of PR Revenue Automation module to ensure that these two modules will be properly integrated with the newly developed FIS/MIS modules by the consultant. Pension disbursement module is already running in Pakistan Railways Headquarters Office, Lahore. **Left over part of Documentation of Pakistan Railways Revenue system will be developed by consultant within (4) months from start day of Contract Agreement. These systems are also required to be integrated with the proposed FIS/MIS module and it will be responsibility of consultant that, these modules and newly developed FIS/MIS modules work as a single unit (ERP) for effective & efficient functioning of Cost Account system and of FIS/MIS.**

2.4 INTEGRATION REQUIREMENTS

The proposed application software must be integrated with existing systems in use by Pakistan Railways as well as external systems of the Controller-General of Accounts in accordance with principles of interoperability and in pursuit of the public finance objectives of the Government of Pakistan. All associated costs of integration shall be quoted as part of the financial proposal. It is the bidder's responsibility to ascertain costs associated with integration. Technical information on current systems can be provided by the IT Department of the Ministry of Railways upon request and if required.

Systems include:

1. Pension System of Pakistan Railways
2. Land Record Management Information System (LRMIS) of Pakistan Railways
3. Ticketing System of Pakistan Railways
4. HRMIS System of Pakistan Railways
5. RPMS System of Pakistan Railways
6. Financial Accounting & Budgeting System (FABS) of the Controller-General of Accounts
7. Railway Automated Booking and Travel Assistance (RABTA) Future Project

In case of any update in software systems mentioned above or procured from the bidder, bidder will also be responsible to check the compatibility. If required any change in code in procured system bidder will be liable to update the code. Whenever there is a requirement to update code on Consultant side. Consultant will be liable to accommodate that request.

Integration should not be limited to the only above-mentioned system, any new system procured or developed by the client before issue of Go Alive Certificate, that required integration shall be easily integrated with system designed by Consultant. Consultant will also responsible to accommodate the new integration request within the post implementation support period that is SLA period.

All the system existing and newly developed within the post implementation period (SLA period, 3 years) and newly procured ERP work as a single unit for costing system and financial system of Pakistan Railways.

TECHNICAL SPECIFICATIONS

3.1 General Technical Requirements

- 3.1.1 Language Support: All information technologies must provide support for the English Language. Specifically, all display technologies and software must support the ISO ----- character set and perform sorting according to -----.
- 3.1.2 DATES: All information technologies MUST properly display, calculate, and transmit date data, including, but not restricted to 21st-Century date data.
- 3.1.3 Electrical Power: All active (powered) equipment must operate on 220v +/- 20v, 50Hz +/- 2Hz. All active equipment must include power plugs standard in Pakistan.
- 3.1.4 Environmental: Unless otherwise specified, all equipment must operate in environments of (-20) to 50 degrees centigrade, 20-99 percent relative humidity, and 0-40 grams per cubic meter of dust.

- 3.1.5 Safety:
 - 3.1.5.1 Unless otherwise specified, all equipment must operate at noise levels no greater than 55 decibels.
 - 3.1.5.2 All electronic equipment that emits electromagnetic energy must be certified as meeting US FCC class B or EN 55022 and EN 50082-1, or equivalent, emission standards.

3.2 Computing the detailed Hardware details and Hardware Specifications

- 3.2.1 Detailed Hardware requirement for the smooth running of the developed Software and their detailed Specification are to be provided by the Consultant. For this purpose, the Hardware specifications requirements guide lines are provided as Annexure – 3 of this RFP, shall be consulted for guidance.

3.3 Network and Communications Specifications

- 3.3.1 Local Area Network(S):
 - 3.3.1.1 Detailed local area network and communication requirements will be provided by the Consultant along with Hardware specification report,
 - 3.3.1.2 All Local Area Network(s) will conform to or exceed the specifications with the specifications to be provided by Consultant.
 - 3.3.1.3 All Data Centre Network(s) will conform to or exceed the specifications with the specifications to be provided by Consultant.
- 3.3.2 Wide-Area Network:
 - 3.3.2.1 Detailed wide area network requirements shall conform to with the specifications to be provided by Consultant.
 - 3.3.2.2 All Wide Area Network(s) will conform to or exceed the specifications to be provided by Consultant.

3.4 Software Specifications

- 3.4.1 System Software and System-Management Utilities:
 - 3.4.1.1 All user workstations will use Operating Systems based on Microsoft Windows 2016 or higher.
 - 3.4.1.2 All user workstations will have an enterprise level Anti-Virus solution, enabling updates from a central location on the Wide Area Network.
 - 3.4.1.3 All user workstations will be part of a network management system for system administration, maintenance updates and troubleshooting.
- 3.4.2 Networking and Communications Software:
 - 3.4.1.1 Support TCP/IP Protocols
 - 3.4.1.2 Support for HTTP and HTTPS Protocols
 - 3.4.1.3 Support for FTP and Secure FTP Protocols
 - 3.4.1.4 Support for NFS Protocols
- 3.4.3 Database Software and Development Tools:
 - 3.4.3.1 Support for latest version of ERP Level, RMBS Data Base appropriate for the developed system and in use as on ----- RDBMS with latest version with Front End Facility.

3.5 System Management, Administration, and Security Specifications

- 3.5.1 General Requirements:
 - 3.5.1.1 A report is provided that gives information on the implications of providing a role with access to a particular field, table or form (e.g. “giving permission to access this form will allow the user to navigate to another form and change field values even though the field is not visible on this form”).

- 3.5.1.2 Role based access is sufficiently granular that one can be sure that only those with a need to access certain data will be able to access that data.
- 3.5.1.3 It is relatively easy to deactivate access for a user.
- 3.5.1.4 Users are not required to have access privileges to the underlying database in order to run workflow processes.
- 3.5.1.5 Context-sensitive roles can be defined (e.g. this user can perform function for specified records only at a specified point in the processing cycle).
- 3.5.1.6 Roles can be established that allow a user to process sensitive data in the software but restrict that user from downloading the data.
- 3.5.1.7 The third-party products and reporting tools which the Consultant says are part of an integrated package have a role-based architecture that is consistent with the software rather than a standalone role-based architecture (e.g. adhoc reporting Tools).
- 3.5.1.8 There is a web-based tool provided that allows to see the access that has been provided to a user with respect to the fields/tables/forms in the software, its underlying database, and integrated third party products and reporting tools if any.
- 3.5.1.9 There is a tool that allows easy to manage access to and deactivation from the software, its underlying database and the integrated third-party products and reporting tools if any.
- 3.5.1.10 The integrated system (consisting of the software, the underlying database, and/or the integrated third-party products) has password change policies and timelines which can be subordinated to and controlled by the Pakistan Railways System Administrators.
- 3.5.1.11 The software system requires a strong password.
- 3.5.1.12 There is a low overhead but secure method to change a password.
- 3.5.1.13 Data fields can be encrypted at the database level.
- 3.5.1.14 All data fields come with auditing enabled.
- 3.5.1.15 Adding audit trails to data fields does not cause a significant degradation of performance.
- 3.5.1.16 Each data field is adequately documented in a data dictionary.
- 3.5.1.17 As Pakistan Railways articulates the standards/rules that define a data field, these standards/rules are then easily imported into a data dictionary.
- 3.5.1.18 If fields have table lookups, only values from the table can be entered into the field unless otherwise specified by Pakistan Railways.
- 3.5.1.19 There are validity rules in place to ensure consistency of data across fields.
- 3.5.1.20 Sufficient data reconciliation and exception reports are provided.
- 3.5.1.21 There are adequate system features in place to prevent the creation of duplicate records during batch transactions. If not possible, Reports are provided that make it easy to locate duplicate records and Functions are provided by the system that make it relatively easy to correct duplicate records.
- 3.5.1.22 The reporting tool(s) recommended by the software Consultant encrypt sensitive data as the data passes from the central system to desktops, other data center servers, etc.
- 3.5.1.23 The system generates reports showing who has requested data exports that include sensitive data.

3.6 Service Specifications

3.6.1 System Integration:

- 3.6.1.1 Consultant will provide specifications of data fields required to be populated by Pakistan Railways of current systems being deployed; namely being Pension system (Pakistan Railway has deployed PIFRA-SAP based system), other systems as explained in Para No.2.4 and Revenue Automation Project (to be developed as a parallel activity during development of ERP Software by Consultant). Client will ensure that all services created to this function will be responsibility of Client.
- 3.6.1.2 Consultant will make available all relevant documents / manuals describing the integration and detailed description of the services provided for these functions in printed as well as soft format, as elaborated in Para 3.6.1.1
- 3.6.1.3 Wherever references are made in the Contract to codes and standards in accordance with which the Contract shall be executed, the edition or the revised version of such codes and standards current at the date twenty-eight (28) days prior to date of bid submission shall apply unless otherwise specified in the Contract Agreement. During Contract execution, any changes in such codes and standards shall be applied after approval by Pakistan Railways.

3.6.2 Training and Training Materials:

- 3.6.2.1 Master Trainers: Consultant will provide user level training 20 master trainers.
- 3.6.2.2 User: Consultant will provide user level training split by functional area, to 200 users.
- 3.6.2.3 Technical: Consultant shall provide Technical level training to 10 number of users.
- 3.6.2.4 Management: Consultant shall provide Management level training to 10 number of users.

3.6.3 Technical Support:

- 3.6.3.1 Warranty Service: Consultant shall provide comprehensive warranty coverage free of cost for a period of six (6) months after issuing of Go Alive Certificate. Thereafter the Consultant will provide Support services for a period of 3 years. A separate Service Level Agreement (SLA) will be executed with Consultant for this purpose, on the already approved cost and Consultant will not have any option of refusal to enter into SLA with PR. Consultant will respond to technical support request in a timely fashion as laid out in a Technical Warranty Service Level Agreement to be submitted by the Consultant along with bid, both for Free (of cost) support period & period prescribed for SLA. The approval of Bid will inclusive of the approval of support services agreement and shall remain mandatory and obligatory till its final expiry date.
- 3.6.3.2 User support / hot line: Consultant will provide a dedicated hotline for user support both for free and SLA period.
- 3.6.3.3 Technical Assistance: Consultant will provide Technical Assistance free of cost for a period of six (6) months after Go Alive certification and for a period of three (3) Years during SLA.

3.6.4 Product updates

- 3.6.4.1 At any point during performance of the Contract, should technological advances be introduced by the Consultant for Information Technologies originally offered by the Consultant in its bid and still to be delivered, the Consultant shall be obligated to offer to Pakistan Railways the latest versions of the available Information Technologies having equal or better performance or functionality at the same or lesser unit prices.

- 3.6.4.2 At any point during performance of the Contract, for Information Technologies still to be delivered, the Consultant will also pass on to Pakistan Railways any cost reductions and additional and/or improved support and facilities that it offers to other clients of the Consultant in Islamic Republic of Pakistan.
- 3.6.4.3 During performance of the Contract, the Consultant shall offer to Pakistan Railways all new versions, releases, and updates of Standard Software, as well as related documentation and technical support services, within thirty (30) days of their availability from the Consultant to other clients of the Consultant in Islamic Republic of Pakistan, and no later than twelve (12) months after they are released in the country of origin.
- 3.6.4.4 During the Free & SLA Period, the Consultant will provide at no additional cost to Pakistan Railways all new versions, releases, and updates for all Standard Software that are used in the System, within thirty (30) days of their availability from the Consultant to other clients of the Consultant in Islamic Republic of Pakistan, and no later than twelve (12) months after they are released in the country of origin of the Software.
- 3.6.4.5 Pakistan Railways shall introduce all new versions, releases or updates of the Software within eighteen (18) months of receipt of a production-ready copy of the new version, release, or update, provided that the new version, release, or update does not adversely affect System operation or performance or require extensive reworking of the System. In cases where the new version, release, or update adversely affects System operation or performance, or requires extensive reworking of the System, the Consultant shall continue to support and maintain the version or release previously in operation for as long as necessary to allow introduction of the new version, release, or update. In no case shall the Consultant stop supporting or maintaining a version or release of the Software less than twenty-four (24) months after Pakistan Railways receives a production-ready copy of a subsequent version, release, or update. Pakistan Railways shall use all reasonable endeavors to implement any new version, release, or update as soon as practicable, subject to the twenty-four-month-long stop date.
- 3.6.5 Software License Agreements
- 3.6.5.1 Except to the extent that the Intellectual Property Rights in the Software vest in Pakistan Railways, the Consultant hereby grants to Pakistan Railways license to access and use the Software, including all inventions, designs, and marks embodied in the Software.
- 3.6.5.2 Such license to access and use the Software shall:
- (a) be:
 - (i) nonexclusive;
 - (ii) fully paid up and irrevocable;
 - (iii) valid throughout the territory of Islamic Republic of Pakistan; and
 - (iv) subject to additional restrictions (if any) as specified in the Technical Requirements.
 - (b) permit the Software to be:
 - (i) used or copied for use on or with the computer(s) for which it was acquired, plus a backup computer(s) of the same or similar capacity, if the primary is(are) inoperative, and during a reasonable transitional period when use is being transferred between primary and backup;

- (ii) used or copied for use on or transferred to a replacement computer(s), (and use on the original and replacement computer(s) may be simultaneous during a reasonable transitional period) provided that, if the Technical Requirements and/or the Consultant's bid specifies a class of computer to which the license is restricted and unless the Consultant agrees otherwise in writing, the replacement computer(s) is(are) within that class;
- (iii) if the nature of the System is such as to permit such access, accessed from other computers connected to the primary and/or backup computer(s) by means of a local or wide-area network or similar arrangement, and used on or copied for use on those other computers to the extent necessary to that access;
- (iv) reproduced for safekeeping or backup purposes;
- (v) customized, adapted, or combined with other computer software for use by Pakistan Railways, provided that derivative software incorporating any substantial part of the delivered, restricted Software shall be subject to same restrictions as are set forth in this Contract;
- (vi) disclosed to, and reproduced for use by, support service suppliers and their subcontractors, (and Pakistan Railways may sublicense such persons to use and copy for use the Software) to the extent reasonably necessary to the performance of their support service contracts, subject to the same restrictions as are set forth in this Contract; and
- (vii) disclosed to, and reproduced for use by, Pakistan Railways and by such other persons (and Pakistan Railways may sublicense such persons to use and copy for use the Software), subject to the same restrictions as are set forth in this Contract.

3.6.6 Data Conversion and Migration:

3.6.6.1 Consultant will be responsible for converting/migrating data for the following functional areas into their system:

3.6.6.1.1 Inventory: 40,000 Items Data (Approximately). Available in soft format.

3.6.6.1.2 Fixed Assets: 350,000 Items Data (Approximately). Available in soft format.

3.6.6.1.3 Human Resources: 90,000 Employees on Payroll (Approximately). Available in soft format.

3.6.6.2 Consultant will be provided detailed plans, stating data entry processes, data validation rules, data quality checks to be used during the entire data conversion/migration process.

3.6.6.2 Consultant will provide corresponding timelines for the entire data conversion/migration process.

3.7 Documentation Rééquipements

3.7.1 END-User documents :

3.7.1.1 Consultant shall provide Training Manuals for Super Users (Master Trainers) as printed copies and Soft Format (Portable Document Format). These manuals will be split by individual functional areas.

- 3.7.1.2 Consultant shall provide Training Manuals for End Users (Data Entry Personnel) as printed copies and Soft Format (Portable Document Format). These manuals will be split by individual functional areas.
- 3.7.1.3 Consultant shall provide Training Manuals for Technical Users (System Administrators, Database Administrators etc.) as printed copies and Soft Format (Portable Document Format). These manuals will be split by individual functional areas.
- 3.7.2 Technical Documents:
 - 3.7.2.1 Consultant shall provide in printed as well as soft format (portable document format) the following technical documents:
 - Listing of Tables, Data Fields being used in bridges
 - Listing of Tables, Data Fields being used in Reports

3.8 Service Specifications

- 3.8.1 Training and Training Materials:
 - 3.8.1.1 Training of Pakistan Railways technical Team for installation specific tasks will be the responsibility of the vendor.
 - 3.8.1.2 Technical Documents: Detailed inventory items broken down by individual machines will be provided in printed as well as soft format.
- 3.8.2 Technical Support:
 - 3.8.2.1 Warranty Service: As per standard Pakistan Railways Policy
 - 3.8.2.2 User support / hot line: As per standard Pakistan Railways Policy
 - 3.8.2.3 Technical Assistance: As per standard Pakistan Railways Policy

3.9 Documentation Requirements

- 3.9.1 User: Detailed training materials will be provided for training end users on their respective platforms. These will be in printed format as well as soft format.
- 3.9.2 Technical: Detailed training materials will be provided for training Network Administrators on their respective platforms. These will be in printed format as well as soft format.
- 3.9.3 Management: Detailed training materials will be provided for training Network and Maintenance Managers on their respective platforms. These will be in printed format as well as soft format.

3.10 Disaster Recovery

Pakistan Railways wishes to implement Disaster Recovery of its intended data center. The Disaster Recovery implementation will be split into two phases, Design of Disaster Recovery and actual implementation. The design phase will be an integral part of this Contract. Any and all software that are required for implementation of Disaster Recovery will be provided for and will be considered as part of the deliverables of this Contract. The scope of work for the disaster recovery will be as follows:

1. Design of Disaster Recovery technical landscape stating all software and hardware requirements
2. Definition and elaboration of Disaster Recovery Standard Operating Procedures
3. Detailed documentation of Disaster Recovery Technical landscape listing software and hardware requirements
4. Detailed documentation of Disaster Recovery SOPs

The design of Disaster Recovery for Pakistan Railways FIS/MIS system, as stated in the scope of the system, will be the responsibility of the software consultant and considered a portion of the Consultant's deliverables as stated in the Terms of Reference Implementation Schedule.

5- The Client will use the comprehensive RFP of all required Hardware, which will be provided by the Consultant, as part of Deliverable. Client will nominate the Supplier/Vender for supply and

installation of hardware. It will be the responsibility of Consultant to inspect and approve the supply of Hardware and its installation. Consultant will be responsible for the deployment and satisfactory operation of Software on/with the accepted Hardware. No excuse of Consultant will be acceptable on the inadequacy of the Hardware in any manner, during or after installation of software on this account.

3.11 Data Centre Specifications

Pakistan Railways FIS/MIS system will run off an intended data center. The design of this data center will be the responsibility of the software consultant. The scope of work for the data center specifications will be as follows:

1. Data Center design schematics stating all components and parameters that will make construction of the data center possible
2. Data Center specifications stating all software and hardware requirements
3. Data center specifications as indicated in Annexur-3 (Hardware Specification guidelines)
- 5- The Client will use the comprehensive RFP of all required Hardware, which will be provided by the Consultant, as part of Deliverable. Client will nominate the Supplier/Vender for supply and installation of hardware. It will be the responsibility of Consultant to inspect and approve the supply of Hardware and its installation. Consultant will be responsible for the deployment and satisfactory operation of Software on/with the accepted Hardware. No excuse of Consultant will be acceptable on the inadequacy of the Hardware in any manner, during or after installation of software on this account.
- 4.

3.12 Service Level Agreement

Pakistan Railways FIS/MIS system will require a Service Level Agreement (SLA) between Pakistan Railways and Software Developing Consultant. A guidance template (stating minimum requirements which should be complied with) is provided in Annexure 6. Consultant will provide SLA agreement as part of the bid. Other terms and conditions of SLA have been already elaborated in para supra.

All headings in the template must be addressed. Absence of an SLA will be considered grounds for rejection of RFP proposal.

D. TESTING AND QUALITY ASSURANCE REQUIREMENTS

4.1 Inspection and Tests

- 4.1.1 Pakistan Railways or its representative (Third party validation/supervising Consultant) shall have the right to inspect and/or test any components of the System, as specified in the Technical Requirements, to confirm their good working order and/or conformity to the Contract at the point of delivery and/or at the Project Site.
- 4.1.2 Pakistan Railways or their designated representatives (Third party validation/supervising Consultant) shall be entitled to attend any such inspections and/or tests of the components, provided that Pakistan Railways shall bear all costs and expenses incurred in connection with such attendance, including but not limited to all inspection agent fees, travel, and related expenses.

- 4.1.3 Should the inspected or tested components fail to conform to the Contract, Pakistan Railways may reject the component(s), and the Consultant shall either replace the rejected component(s), or make alterations as necessary so that it meets the Contract requirements free of cost to Pakistan Railways.
- 4.1.4 The authorized representative of Pakistan Railways (Third party validation/supervising Consultant) may require the Consultant to carry out any inspection and/or test not specified in the Contract, provided that the Consultant's reasonable costs and expenses incurred in the carrying out of such inspection and/or test shall be added to the Contract Price. Further, if such inspection and/or test impedes the progress of work on the System and/or the Consultant's performance of its other obligations under the Contract, due allowance will be made in respect of the Time for Achieving Operational Acceptance and the other obligations so affected.
- 4.1.5 If any dispute or difference of opinion shall arise between the parties in connection with or caused by an inspection and/or with regard to any component to be incorporated in the System that will be settled as laid down in the Draft Contract Agreement.

4.2 Installation of the System

- 4.2.1 As soon as the System, or any Subsystem, has, in the opinion of the Consultant, been delivered, Pre-commissioned, and made ready for Commissioning and Operational Acceptance Testing in accordance with the Technical Requirements, the Contract Agreement and the Agreed and Finalized Project Plan, the Consultant shall so notify Pakistan Railways in writing.
- 4.2.2 Pakistan Railway's Representative (Third party validation/supervising Consultant) shall, within fourteen (14) days after receipt of the Consultant's notice, either issue an Installation Certificate in the form specified in Annex 4, stating that the System, or major component or Subsystem (if Acceptance by major component or Subsystem is specified in the Contract), has achieved Installation by the date of the Consultant's notice, or notify the Consultant in writing of any defects and/or deficiencies, including, but not limited to, defects or deficiencies in the interoperability or integration of the various components and/or Subsystems making up the System. The Consultant shall use all reasonable endeavors to promptly remedy any defect and/or deficiencies that the Representative has notified the Consultant of. The Consultant shall then promptly carry out retesting of the System or Subsystem and, when in the Consultant's opinion the System or Subsystem is ready for Commissioning and Operational Acceptance Testing, notify Pakistan Railways in writing, in accordance with Clause 4.2.1 above. The procedure set out in this Clause 4.2.2 shall be repeated, as necessary, until an Installation Certificate is issued.
- 4.2.3 If the Pakistan Railways' Representative (Third party validation/supervising Consultant) fails to issue the Installation Certificate and fails to inform the Consultant of any defects and/or deficiencies within fourteen (14) days after receipt of the Consultant's notice under Clause 4.2.1 above, or if Pakistan Railways puts the System or a Subsystem into production operation, then the System (or Subsystem) shall be deemed to have achieved successful Installation as of the date of the Consultant's notice or repeated notice, or when Pakistan Railways put the System into production operation, as the case may be.

4.3 Commissioning and Operational Acceptance

- 4.3.1 Commissioning
 - 4.3.1.1 Commissioning of the System (or Subsystem if specified in the Contract) shall be commenced by the Consultant:
 - (a) immediately after the Installation Certificate is issued by the Pakistan

Railway's Representative (Third party validation/supervising Consultant);
or

- (b) as otherwise specified in the Technical Requirement or the Agreed and Finalized Project Plan; or
- (c) immediately after Installation is deemed to have occurred, under Clause 4.2.3 of this section.

4.3.1.2 Pakistan Railways shall supply the operating and technical personnel and all materials and information reasonably required to enable the Consultant to carry out its obligations with respect to Commissioning.

Production use of the System or Subsystem(s) shall not commence prior to the start of formal Operational Acceptance Testing.

4.3.2 Operational Acceptance Tests

4.3.2.1 The Operational Acceptance Tests (and repeats of such tests) shall be the primary responsibility of Pakistan Railways or Third party validation/supervising Consultant, but shall be conducted with the full cooperation of the Consultant during Commissioning of the System (or Subsystem[s] if specified in the Contract), to ascertain whether the System (or major component or Subsystem[s]) conforms to the Technical Requirements and design documents and meets the standard of performance quoted in the Consultant's bid, including, but not restricted to, the functional and technical performance requirements. The Operational Acceptance Tests during Commissioning will be conducted as specified in the Technical Requirements and/or the Agreed and Finalized Project Plan. Operational Acceptance Testing shall be conducted in accordance with System or the Subsystems, the tests, the test procedures and the required results for acceptance. Operational Acceptance shall be interpreted as accepted when all business functions stated by Pakistan Railways have been verified to be catered to according to the Design Documents.

At Pakistan Railway's discretion, Operational Acceptance Tests may also be performed on upgrades and new version releases, and Goods that are added or field-modified after Operational Acceptance of the System.

4.3.2.2 If for reasons attributable to Pakistan Railways, the Operational Acceptance Test of the System (or Subsystem[s] or major component if allowed by the SCC and/or the Technical Specifications) cannot be successfully completed within the 15 days from the date of installation or any other period agreed upon in writing by Pakistan Railways and the Consultant, the Consultant shall be deemed to have fulfilled its obligations with respect to the technical and functional aspects of the Technical Specifications, SCC and/or the Agreed and Finalized Project Plan, and SCC Clause 3.6 shall not apply.

4.3.3 Operational Acceptance

4.3.3.1 Subject to Clause 4.3.4 (Partial Acceptance) below, Operational Acceptance shall occur in respect of the System, when

- (a) the Operational Acceptance Tests, as specified in the Technical Requirements, and/or SCC and/or the Agreed and Finalized Project Plan have been successfully completed; or
- (b) the Operational Acceptance Tests have not been successfully completed or have not been carried out for reasons that are attributable to Pakistan Railways within the period from the date of Installation or any other agreed-upon period as specified in Clause 4.3.2.2 above; or
- (c) Pakistan Railways has put the System into production or use for sixty (60)

consecutive days. If the System is put into production or use in this manner, the Consultant shall notify Pakistan Railways and document such use.

4.3.3.2 At any time after any of the events set out in Clause 4.3.3.1 above have occurred, the Consultant may give a notice to the Pakistan Railways Representative requesting the issue of an Operational Acceptance Certificate.

4.3.3.3 After consultation with Pakistan Railways, and within fourteen (14) days after receipt of the Consultant's notice, the Pakistan Railways Representative shall:

- (a) issue an Operational Acceptance Certificate; or
- (b) notify the Consultant in writing of any defect or deficiencies or other reason for the failure of the Operational Acceptance Tests; or
- (c) issue the Operational Acceptance Certificate, if the situation covered by Clause 4.3.3.1 (b) above arises.

4.3.3.4 The Consultant shall use all reasonable endeavors to promptly remedy any defect and/or deficiencies and/or other reasons for the failure of the Operational Acceptance Test that the Pakistan Railways Representative has notified the Consultant of. Once such remedies have been made by the Consultant, the Consultant shall notify Pakistan Railways, and Pakistan Railways, with the full cooperation of the Consultant, shall use all reasonable endeavors to promptly carry out retesting of the System or Subsystem. Upon the successful conclusion of the Operational Acceptance Tests, the Consultant shall notify Pakistan Railways of its request for Operational Acceptance Certification, in accordance with Clause 4.3.3.3 above. Pakistan Railways shall then issue to the Consultant the Operational Acceptance Certification in accordance with Clause 4.3.3.3 (a), or shall notify the Consultant of further defects, deficiencies, or other reasons for the failure of the Operational Acceptance Test. The procedure set out in this Clause 4.3.3.4 shall be repeated, as necessary, until an Operational Acceptance Certificate is issued.

4.3.3.5 If the System or Subsystem fails to pass the Operational Acceptance Test(s) in accordance with Clause 4.3.2 above, then either:

- (a) Pakistan Railways may consider terminating the Contract, pursuant to provisions in the Contract Agreement;
- or
- (b) if the failure to achieve Operational Acceptance within the specified time period is a result of the failure of Pakistan Railways to fulfill its obligations under the Contract, then the Consultant shall be deemed to have fulfilled its obligations with respect to the relevant technical and functional aspects of the Contract, and Clauses 4.5.3 and 5.5.4 below shall not apply.

4.3.3.6 If within fourteen (14) days after receipt of the Consultant's notice the Pakistan Railways Representative fails to issue the Operational Acceptance Certificate or fails to inform the Consultant in writing of the justifiable reasons why the Pakistan Railways Representative has not issued the Operational Acceptance Certificate, the System or Subsystem shall be deemed to have been accepted as of the date of the Pakistan Railways Representative's said notice.

4.3.4 Partial Acceptance

4.3.4.1 If specified in the Contract, Installation and Commissioning shall be carried out individually for each identified major component or Subsystem(s) of the System. In this event, the provisions in the Contract relating to Installation and Commissioning, including the Operational Acceptance Test, shall apply to each such major component or Subsystem individually, and Operational Acceptance Certificate(s) shall be issued accordingly for each such major component or

Subsystem of the System, subject to the limitations contained in Clause 4.3.4.2 below.

4.3.4.2 The issuance of Operational Acceptance Certificates for individual major components or Subsystems pursuant to Clause 4.3.4.1 above shall not relieve the Consultant of its obligation to obtain an Operational Acceptance Certificate for the System as a whole once all major components and Subsystems have been supplied, installed, tested, and commissioned.

4.3.4.3 In the case of minor components for the System that by their nature do not require Commissioning or an Operational Acceptance Test (e.g., minor fittings, furnishings or site works, etc.), the Pakistan Railways Representative shall issue an Operational Acceptance Certificate within fourteen (14) days after the fittings and/or furnishings have been delivered and/or installed or the site works have been completed. The Consultant shall, however, use all reasonable endeavors to promptly remedy any defects or deficiencies in such minor components detected by Pakistan Railways or Consultant.

4.4 Defect Liability (Warranty)

4.4.1 The Consultant warrants that the System, including all Information Technologies, Materials, and other Goods supplied and Services provided, shall be free from defects in the design, engineering, materials, and workmanship that prevent the System and/or any of its components from fulfilling the Technical Requirements or that limit in a material fashion the performance, reliability, or extensibility of the System and/or Subsystems. Commercial warranty provisions of products supplied under the Contract shall apply to the extent that they do not conflict with the provisions of this Contract.

4.4.2 The Consultant also warrants that the Information Technologies, Materials, and other Goods supplied under the Contract are new, unused, and incorporate all recent improvements in design that materially affect the System's or Subsystem's ability to fulfil the Technical Requirements.

4.4.3 In addition, the Consultant warrants that: (i) all Goods components to be incorporated into the System form part of the Consultant's and/or Subcontractor's current product lines, (ii) they have been previously released to the market.

4.4.4 The Warranty Period shall commence from the date of Operational Acceptance of the System (or of any major component or Subsystem for which separate Operational Acceptance is provided for in the Contract) and shall extend for 36 months. During the warranty period the Consultant must commence the work necessary to remedy defects or damage within 1 working day of notification.

4.4.5 If during the Warranty Period any defect as described above should be found in the design, engineering, Materials, and workmanship of the Information Technologies and other Goods supplied or of the Services provided by the Consultant, the Consultant shall promptly, in consultation and agreement with Pakistan Railways regarding appropriate remedying of the defects, and at its sole cost, repair, replace, or otherwise make good (as the Consultant shall, at its discretion, determine) such defect as well as any damage to the System caused by such defect. Any defective Information Technologies or other Goods that have been replaced by the Consultant shall remain the property of the Consultant.

4.4.6 The Consultant shall not be responsible for the repair, replacement, or making good of any defect or of any damage to the System arising out of or resulting from any of the following causes provide that it is reasonably established that the fault /defect is because of the following g reason:

- (a) improper operation or maintenance of the System by Pakistan Railways;
- (b) normal wear and tear;
- (c) use of the System with items not supplied by the Consultant, unless otherwise identified in

- (d) the Technical Requirements, or approved by the Consultant; or modifications made to the System by Pakistan Railways, or a third party, not approved by the Consultant.
- 4.4.7 The Consultant's obligations under defect liability shall not apply to:
- (a) any materials that are normally consumed in operation or have a normal life shorter than the Warranty Period; or
 - (b) any designs, specifications, or other data designed, supplied, or specified by or on behalf of Pakistan Railways or any matters for which the Consultant has disclaimed responsibility, which is in addition to the design, specification etc already settle down in the contract.
- 4.4.8 Pakistan Railways shall give the Consultant a notice promptly following the discovery of such defect, stating the nature of any such defect together with all available evidence. Pakistan Railways shall afford all reasonable opportunity for the Consultant to inspect any such defect. Pakistan Railways shall afford the Consultant all necessary access to the System and the site to enable the Consultant to perform its obligations.
- 4.4.9 The Consultant may, with the consent of Pakistan Railways, remove from the site any Information Technologies and other Goods that are defective, if the nature of the defect, and/or any damage to the System caused by the defect, is such that repairs cannot be expeditiously carried out at the site. If the repair, replacement, or making good is of such a character that it may affect the efficiency of the System, Pakistan Railways may give the Consultant notice requiring that tests of the defective part be made by the Consultant immediately upon completion of such remedial work, whereupon the Consultant shall carry out such tests.
- If such part fails the tests, the Consultant shall carry out further repair, replacement, or making good (as the case may be) until that part of the System passes such tests. The tests shall be agreed upon by Pakistan Railways and the Consultant.
- 4.4.10 If the Consultant fails to commence the work necessary to remedy such defect or any damage to the System caused by such defect within the time period specified above, Pakistan Railways may, following notice to the Consultant, proceed to do such work or contract a third party (or parties) to do such work, and the reasonable costs incurred by Pakistan Railways in connection with such work shall be paid to Pakistan Railways by the Consultant or may be deducted by Pakistan Railways from any monies due the Consultant or claimed under the Performance Security.
- 4.4.11 If the System or Subsystem cannot be used by reason of such defect and/or making good of such defect, the Warranty Period for the System shall be extended by a period equal to the period during which the System or Subsystem could not be used by Pakistan Railways because of such defect and/or making good of such defect.
- 4.4.12 Items substituted for defective parts of the System during the Warranty Period shall be covered by the Defect Liability Warranty for the remainder of the Warranty Period applicable for the part replaced or three (3) months, whichever is greater.
- 4.4.13 At the request of Pakistan Railways and without prejudice to any other rights and remedies that Pakistan Railways may have against the Consultant under the Contract, the Consultant will offer all possible assistance to Pakistan Railways to seek warranty services or remedial action from any subcontracted third-party producers or licensor of Goods included in the System, including without limitation assignment or transfer in favor of Pakistan Railways of the benefit of any warranties given by such producers or licensors to the Consultant.

4.5 Functional Guarantees

- 4.5.1 The Consultant guarantees that, once the Operational Acceptance Certificate(s) has been issued, the System represents a complete, integrated solution to Pakistan Railway's requirements set forth in the Technical Requirements and it conforms to all other aspects of the Contract including the Design Documents. The Consultant acknowledges how technical conformance of the System to the Contract requirements will be determined.
- 4.5.2 "Year 2000 Compliance." The Consultant warrants that the Information Systems and Technologies being supplied under this Contract are designed or modified, and fully tested, to operate without interruption or manual intervention in compliance with Contract requirements for dates before and after 2000 AD, including correct treatment of year 2000 as a leap year, date data century recognition, calculations that accommodate same-century and multi-century formulas and date values, and date data interface fields that allow the specification of century.
- 4.5.3 If, for reasons attributable to the Consultant, the System does not conform to the Technical Requirements or does not conform to all other aspects of the Contract, the Consultant shall at its cost and expense make such changes, modifications, and/or additions to the System as may be necessary to conform to the Technical Requirements and meet all functional and performance standards. The Consultant shall notify Pakistan Railways upon completion of the necessary changes, modifications, and/or additions and shall request Pakistan Railways to repeat the Operational Acceptance Tests until the System achieves Operational Acceptance.
- 4.5.4 If the System (or Subsystem[s]) fails to achieve Operational Acceptance, Pakistan Railways may consider termination of the Contract and forfeiture of the Consultant's performance security in accordance in compensation for the extra costs and delays likely to result from this failure.

E. INTELLECTUAL PROPERTY RIGHTS

5.1 Intellectual Property Rights Warranty

- 5.1.1 The Consultant hereby represents and warrants that:
- (a) the System as supplied, installed, tested, and accepted;
 - (b) use of the System in accordance with the Contract; and
 - (c) copying of the Software and Materials provided to Pakistan Railways in accordance with the Contract
- do not and will not infringe any Intellectual Property Rights held by any third party and that it has all necessary rights or at its sole expense shall have secured in writing all transfers of rights and other consents necessary to make the assignments, licenses, and other transfers of Intellectual Property Rights and the warranties set forth in the Contract, and for Pakistan Railways to own or exercise all Intellectual Property Rights as provided in the Contract. Without limitation, the Consultant shall secure all necessary written agreements, consents, and transfers of rights from its employees and other persons or entities whose services are used for development of the System.

5.2 Intellectual Property Rights Indemnity

- 5.2.1 The Consultant shall indemnify and hold harmless Pakistan Railways and its employees

and officers from and against any and all losses, liabilities, and costs (including losses, liabilities, and costs incurred in defending a claim alleging such a liability), that Pakistan Railways or its employees or officers may suffer as a result of any infringement or alleged infringement of any Intellectual Property Rights by reason of:

- (a) installation of the System by the Consultant or the use of the System, including the Materials, in the country where the site is located;
- (b) copying of the Software and Materials provided the Consultant in accordance with the Agreement; and
- (c) sale of the products produced by the System in any country, except to the extent that such losses, liabilities, and costs arise as a result of Pakistan Railway's breach.

5.2.2 Such indemnity shall not cover any use of the System, including the Materials, other than for the purpose indicated by or to be reasonably inferred from the Contract, any infringement resulting from the use of the System, or any products of the System produced thereby in association or combination with any other goods or services not supplied by the Consultant, where the infringement arises because of such association or combination and not because of use of the System in its own right.

5.2.3 Such indemnities shall also not apply if any claim of infringement:

- (a) is asserted by a parent, subsidiary, or affiliate of Pakistan Railway's organization;
- (b) is a direct result of a design mandated by Pakistan Railway's Technical Requirements and the possibility of such infringement was duly noted in the Consultant's Bid; or
- (c) results from the alteration of the System, including the Materials, by Pakistan Railways or any persons other than the Consultant or a person authorized by the Consultant.

5.2.4 If any proceedings are brought or any claim is made against Pakistan Railways arising out of the matters referred above, Pakistan Railways shall promptly give the Consultant notice of such proceedings or claims, and the Consultant may at its own expense and in Pakistan Railway's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.

If the Consultant fails to notify Pakistan Railways within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then Pakistan Railways shall be free to conduct the same on its own behalf. Unless the Consultant has so failed to notify Pakistan Railways within the twenty-eight (28) days, Pakistan Railways shall make no admission that may be prejudicial to the defense of any such proceedings or claim. Pakistan Railways shall, at the Consultant's request, afford all available assistance to the Consultant in conducting such proceedings or claim and shall be reimbursed by the Consultant for all reasonable expenses incurred in so doing.

5.2.5 Pakistan Railways shall indemnify and hold harmless the Consultant and its employees, officers, and Subcontractors from and against any and all losses, liabilities, and costs (including losses, liabilities, and costs incurred in defending a claim alleging such a liability) that the Consultant or its employees, officers, or Subcontractors may suffer as a result of any infringement or alleged infringement of any Intellectual Property Rights arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided to the Consultant in connection with this Contract by Pakistan Railways or any persons (other than the Consultant) contracted by Pakistan Railways, except to the extent that such losses, liabilities, and costs arise as a result of the Consultant's breach.

5.2.6 Such indemnity shall not cover any use of the design, data, drawing, specification, or other documents or materials, other than for the purpose indicated by or to be reasonably inferred from the Contract, or any infringement resulting from the use of the design, data, drawing,

specification, or other documents or materials, or any products produced thereby, in association or combination with any other Goods or Services not provided by Pakistan Railways or any other person contacted by Pakistan Railways, where the infringement arises because of such association or combination and not because of the use of the design, data, drawing, specification, or other documents or materials in its own right.

5.2.7 Such indemnities shall also not apply:

- (a) if any claim of infringement is asserted by a parent, subsidiary, or affiliate of the Consultant's organization;
- (b) to the extent that any claim of infringement caused by the alteration, by the Consultant, or any persons contracted by the Consultant, of the design, data, drawing, specification, or other documents or materials provided to the Consultant by Pakistan Railways or any persons contracted by Pakistan Railways.

5.2.8 If any proceedings are brought or any claim is made against the Consultant arising out of the matters referred to in Clause 5.2.5, the Consultant shall promptly give Pakistan Railways notice of such proceedings or claims, and Pakistan Railways may at its own expense and in the Consultant's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim. If Pakistan Railways fails to notify the Consultant within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Consultant shall be free to conduct the same on its own behalf. Unless Pakistan Railways has so failed to notify the Consultant within the twenty-eight (28) days, the Consultant shall make no admission that may be prejudicial to the defense of any such proceedings or claim. The Consultant shall, at Pakistan Railway's request, afford all available assistance to Pakistan Railways in conducting such proceedings or claim and shall be reimbursed by Pakistan Railways for all reasonable expenses incurred in so doing.

5.3 Copyright

5.3.1 The Intellectual Property Rights in all Standard Software and Standard Materials shall remain vested in the owner of such rights.

5.3.2 Pakistan Railways agrees to restrict use, copying, or duplication of the Standard Software and Standard Materials in accordance software license agreement, except that additional copies of Standard Materials may be made by Pakistan Railways for use within the scope of the project of which the System is a part, in the event that the Consultant does not deliver copies within thirty (30) days from receipt of a request for such Standard Materials.

5.3.3 Pakistan Railway's contractual rights to use the Standard Software or elements of the Standard Software may not be assigned, licensed, or otherwise transferred voluntarily except in accordance with the relevant license agreement or as may be otherwise specified below.

5.3.4 Pakistan Railway's and the Consultant's rights and obligations with respect to Custom Software or elements of the Custom Software, including any license agreements, and with respect to Custom Materials or elements of the Custom Materials are that the intellectual property rights will vest with Pakistan Railways. The Intellectual Property Rights in all Custom Software and Custom Materials, at the date of this Contract or on creation of the rights (if later than the date of this Contract), vest in Pakistan Railways. The Consultant shall do and execute or arrange for the doing and executing of each necessary act, document, and thing that Pakistan Railways may consider necessary or desirable to perfect the right, title, and interest of Pakistan Railways in and to those rights. In respect of such Custom Software and Custom Materials, the Consultant shall ensure that the holder of a moral right

in such an item does not assert it, and the Consultant shall, if requested to do so by Pakistan Railways and where permitted by applicable law, ensure that the holder of such a moral right waives it.

- 5.3.5 Consultant will provide all the licenses, development kits and codes which are otherwise not the intellectual property of any Off the Shelf (OTS) software manufacturers for the FIS/MIS software to be developed/customized.

Phase-I

Review of Business, Accounting Manuals, Cost Accounting, Data updating and Revenue System.

Pakistan Railways, a self-accounting entity is under the control and management of Ministry of Railways, Islamabad and its Headquarters is located at Lahore. Pakistan Railways comprises seven territorial Operating Divisions, i.e. Peshawar, Rawalpindi, Lahore, Multan, Sukkur, Karachi and Quetta and one Mechanical Division (Workshops) at Moghalpura, Lahore. In addition to these divisions, Pakistan Railways has established a Carriage Factory, a Locomotive Factory and five Concrete Sleeper Factories. Pakistan Railways has also set up three subsidiary companies namely, Pakistan Railway Advisory and Consultancy Services Limited (PRACS) and Railway Constructions Pakistan Limited (RAILCOP), Pakistan Railways Freight Transportation Ltd (PFRTC), registered under the Companies Ordinance, 1984.

1-Review of Business Codes

1.1. There are six (6) Business Codes. These Codes primarily provide the policies, Procedures, related Business flow pattern, Forms, Powers and responsibilities at various level of Administration to carry out the business of some executive Departments of Pakistan Railways. Following is the List of these Codes.

1. General Code
2. Engineering Code
3. Mechanical Code
4. Traffic Code
5. Store Code
6. Accounts Code (P-I & P-II)

1.2. These Business codes were revised during 2014-15, as per Business pattern existing at that time.

1.3. The Consultant is now required to review these Codes against the Business pattern of 2021. Consultant is required to submit a report about the validity of the existing Business pattern.

1.4. In case, there is need of any amendment to match these Codes as per existing business pattern, the same shall be pointed out along with the needed amendments, by providing reasons for proposed amendments.

1.5 The required changes/amendments shall be documented and submitted to Client for taking further necessary action.

2-Review of Accounting Manuals

2.1. New Accounting Manuals have been developed after study of the mismatch of existing Accounting Manuals of PR with NAM & IAS, carrying out gap analysis and commiserating them with the NAM & IAS. These Manuals were framed during 2009-10 after preparing new Chart of Accounts. Following is the list.

1. Financial statements and records
2. Tangible fixed assets
3. Intangible assets
4. Long terms loan and advances to employees
5. Investments
6. Procurements
7. Stores and stocks
8. Cash and banks
9. Revenue
10. Receivables
11. Expenditures
12. Payables
13. Government Grants and Investment by Government
14. Employees benefits and payroll
15. Borrowings

2.2 Consultant shall review these Manuals and validate that these are still applicable as per organizational structure, Propose NAM/IAS compliance Financial Account Recording and disclosure system.

2.3 In case, any change is required, that shall be pointed out with proper justifications.

2.4 The required changes/amendments shall be documented and submitted to Client for taking further necessary action.

3-Revenue System.

3.1 This system was also developed during overview of PR Accounting system as explained in Para No-----during 2009-10

3.2 A few new revenue system have been adopted by PR since then. These are in respect of outsourcing the management of the Passenger trains, private Freight train operations from Dry ports, out sourcing of parcel and luggage vans & trains etc.

3.3 These systems shall be provided Primary and subsidiary codes for compliance of NAM, in line with already carried out coding of Revenue system by Consultant.

3.4 Consultant shall also integrate the new sources with Train Costing system.

3.5 The Business Flow Diagrams, Logical Data Diagrams and Entity Relationship Diagrams of this Revenue system are still to be developed for its digitization and developing its module, which is required to be integrated with the new Proposed ERP Software. Consultant shall carry out this job in line with all the other modules since completed and are enclosed in the RFP as Annexure-

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3.6 Consultant shall execute all the activities listed in Para No. 3.2 to 3.5 and submit to the Client for approval in the form of a comprehensive Report.

3.7 Consultant shall incorporate the changes after approval.

3.8 The Diagrams shall be used by Consultant for the development of ERP software of Phase-II after approval of Client.

3.9 Consultant will incorporate the additional Codes (Primary or Subsidiary) in the already provided Master Code Scheme, provided in section-7 of this RFP

3.10 Consultant is encouraged to study the Agreement of previous Consultant, M/s Riaz & Co for familiarize and having a deep understanding of this activity. (Document is available with PD/FIS-MIS, which can be provided to intended Consultants in soft form on request.

5-Update of Master Code Scheme

5.1 The Master coding scheme was devised after development of new accounting manuals subsequent to the development of COA. The primary codes are developed to make compliance with NAM. The subsidiary codes up to eleven (11) levels are developed to support an appropriate Management Information system (MIS) and elaborate Cost Accounting system.

5.2 Consultant shall be responsible to incorporate the new proposed subsidiary codes and Primary codes (if required) since submitted to Client after review, when their approval is conveyed by the Client.

5.3 Consultant shall be responsible to ensure that any effect of this change do not interfere with the Cost Accounting and MIS.

5.4 In case of any eventuality as prescribed in Para 4.3, consultant shall be responsible for their mitigation and working as per desired results and Financial statements.

6-Update of Data

6.1 All the available Data of modules described in Annexure-2 of RFP is as that was existing on 30th June, 2009.

6.2 This Data needs to be updated as on 30th June, 2021 before entering in the new developed ERP Modules by Consultant.

6.3 Consultant shall get this data in Soft form from Director FIS/MIS for review.

6.4 Consultant shall be responsible to get the required Data from the related book keeping authorities

6.5 Mostly, Data will be available from PR Headquarters office and Divisional Superintends offices & respective manufacturing units.

6.6 PD/FIS/MIS will afford necessary help and nominate the Contact Official to carry out this job. However, it shall be the responsibility of Consultant to collect the latest Data before entering in the Modules. All expenditure incurred, including travelling lodging, and other incidental charges shall be borne by Consultant and shall be part of the quoted Cost for this Phase. No extra amount or cost or escalation will be entertained by Client or PR in this respect

6.7 The other important task will be to reevaluate the monetary items (Such as Lands, Structures, Rolling Stock, Inventories etc) at their present rate value after application of straight line depreciations. The format can be provided by PD/FIS-MIS in soft form, which was used in valuation of costs as on 30th June, 2009, for guidance and help. The Cost will be entered in the Modules by Consultant at their present depreciated value. This activity shall also be the part of quoted cost for this Phase.

7-Review of Cost Accounting

Based upon the documents narrated in Para No. 1 to 3, a Cost Accounting system has been

developed for the following:

1. Cost Accounting System-Rail
2. Cost Accounting System Workshop and Factories
3. Cost Accounting System Concrete Sleeper Factories
4. Project Costing
5. Budget

7.1 These systems were developed during 2009-10.

7.2 Consultant shall review these systems and confirm that these are still valid after additional coding of the Revenue System.

7.3 In case any deficiency is noticed that shall be documented.

7.4 The required documented changes/amendments shall be submitted to Client in the form of a report for taking further necessary action.

8-Generation of Financial Statements & Reports:

8.1 The Consultant will prepare following Financial Reports for the PR for year Ending 30th June,2021 from the Accounts manually prepared by Account Office of PR Headquarters Office by applying the new Account manuals duly reviewed and updated (where required).

Statement of Cash Flow for the Year ending 30th June, 2021

Statement of Financial Position of PR as on 30th June,2021

Income Statement for the year Ending 30th June, 2021

Statement of Comprehensive Income of PR for the Year ending 30th June,2021

Statement of Income in Equity of PR for the Year Ending 30th June, 2021

8.2 Consultant shall prepare the following Accounts as per procedure stated in Para 8.1 of PR for the Year ending 30th June, 2021.

Balance Sheet (Corporate Format)

Appropriation Accounts

Public Accounts.

8.3 These Financial Statements and Accounts will be submitted to CGA by FA/CAO/PR

8.3 Consultant will provide necessary support to FA/CAO for rectification or replying the observations of CGA till final approval.

8.4 Consultant shall such changes or amendments in Accounting Manuals to avoid similar observations in future.

8.5 Selected Consultant shall be provided the complete record of similar exercise made from the reports of previous Consultant (M/s Riaz & CO)

8.6 This approval of CGA will formally close the activities of Phase-I of the project.

9-Hardware Requirement Specifications.

9.1 Consultant will provide the details of all the Hardware required for deployment, implementation, training, testing of the Software along with cost estimate.

9.2 Consultant shall provide the Specifications of Hardware, including Design of Data Center and Disaster management Data center or any required Backup system.

9.3 Consultant shall provide all the information stated in Para 9.1 & 9.2 along with RFP to Client for publication.

9.4 Vender/Supplier will be selected by Client by implementing Departmental mandatory procedure and sign the Contract Agreement.

9.4 Consultant will work as Supervisory Consultant for supply and installation of the Hardware.

9.5 Payments to vender will be made by Client after certification of invoices by Consultant.

Deliverables & Implementation Schedule of Phase-I (!6 Weeks will be provided for competition of all activities.

S.N	Description	Start Week	End Week
1	Report on Review of Business codes	0W	4W
2	Report on Review of Accounting Manuals	1W	5W
3	Report on Revenue System	2W	14W
4	Report on update of Coding scheme	3W	7W
5	Report on update of Data	3W	14W
6	Report on Cost Accounting	4W	8W
7	Submission of Financial Statements & Accounts	14W	16W
8-	Submission of RFP for procurement of Hard ware	5W	16W

Deliverables & Implementation Schedule of Phase-II (72 Weeks will be provided for completion of this Phase)

S.N	Description	Start Week	End Week
1	Project Launch		
2	Requirement Definition		
3	Detailed Design		
4	System Configuration		
5	Acquire & Install system		
6	Application Development		
7	Testing		
8-	Documentation		
9	Data migration		
10	System software application		
11	Testing		
12	Update Documentation		
13	Training		
14	Go Alive		

F. IMPLEMENTATION SCHEDULE

Implementation Schedule Table Software

S. No.	Milestone	Off The Shelf / Customised Off the Shelf Solution Deliverables	Custom Deliverables Development	Weeks starts from Effective date	Weeks end from Effective date
1	Project Initiation			W0	W0
2	Project Plan	Project Plan, software quality assurance plan, training plan, plan stating integration between proposed designed Software and system already running by Pakistan Railways and in accordance with G.C.C.NO 6.2.	Project Plan, software quality assurance plan, training plan, plan stating integration between proposed designed Software and system already running by Pakistan Railways and in accordance with G.C.C.NO 6.2	W0	W04
3.1 3.2 3.3 3.4	Solution Design	1- Future process model 2- Stating Customization 3- Profiling Option 4- user acceptance tests for various modules and sub-component of the project	1- Future process model 2- Stating Customization 3- Profiling Option 4- user acceptance tests for various modules and sub-component of the project	W04	W08

4	UI Design Screen	Use Interface Design Screen	Use Interface Design Screen	W08	W38
5	Data Centre Design and Hardware Requirement	Data center design, detail of hardware requirement for running proposed software solution, and technical details and specifications of disaster recovery center and as specified G.C.C No 3.10 and G.C.C No 3.11 .	Data center design, detail of hardware requirement for running proposed software solution, and technical details and specifications of disaster recovery center and as specified G.C.C No 3.10 and G.C.C No 3.11 ..	W08	W12

6	Development of Software	In accordance with the Software design specifications and TOR technical requirement given in the contract assignment and on issue of acceptance certificate as given at annexure-4 of this agreement.	In accordance with the Software design specifications and TOR technical requirement given in the contract assignment and on issue of acceptance certificate as given at annexure-4 of this agreement.	W08	W38
7	Implementation of Newly Develop Software	Implementation of newly developed software which would require installation certificate as provided at Annx-5 of this agreement.	Implementation of newly developed software and user acceptance tests which would require installation certificate as provided at Annx-5 of this agreement.	W28	W32
8	user acceptance tests	user acceptance tests	user acceptance tests	W40	W44
9	User Documentation	User Documentation	User Documentation	W32	W36
10	Training of Users	Training of Users as per detail given in the contract agreement.	Training of Users as per detail given in the contract agreement.	W30	W52
11	Sign Off	Sign Off	Sign Off	W52	W52

G. PROJECT PLAN

6.1 Project Plan

- 6.1.1 In close cooperation with Pakistan Railways and based on the Work Plan included in the Consultant's bid, the Consultant shall develop a Project Plan encompassing the activities specified in the Contract. The contents of the Project Plan shall be as specified in the Technical Requirements.
- 6.1.2 The Consultant shall formally present to Pakistan Railways the Project Plan in accordance with the procedure specified below.
- 6.1.3 If required, the impact on the Implementation Schedule of modifications agreed during finalization of the Agreed and Finalized Project Plan shall be incorporated in the Contract by amendment, in accordance with GCC Clauses 2.4.
- 6.1.4 The Consultant shall undertake to supply, install, test, and commission the System in accordance with the Agreed and Finalized Project Plan and the Contract.
- 6.1.5 The Progress and other reports specified in the SCC shall be prepared by the Consultant and submitted to Pakistan Railways in the format and frequency specified in the Technical Requirements

6.2 Constituents of Project Plan

- 6.2.1 Chapters in the Project Plan shall address the following subjects:
 - a) Project Organization and Management Plan
 - b) Delivery and Installation Plan
 - c) Training Plan
 - d) Pre-Commissioning and Operational Testing Plan
 - e) Warranty Service Plan
 - f) Task, Time and Resource Schedules
 - g) Technical Support Plan

6.3 Approval of Project Plan

- 6.3.1 Within 2 weeks from the Effective Date of the Contract, the Consultant shall present a Project Plan to Pakistan Railways. Pakistan Railways shall, within 1 week of receipt of the Project Plan, notify the Consultant of any respects in which it considers that the Project Plan does not adequately ensure that the proposed program of work, proposed methods, and/or proposed Information Technologies will satisfy the Technical Requirements and/or the SCC herein called non-conformity. The Consultant shall, within 1 week of receipt of such notification, correct the Project Plan and resubmit to Pakistan Railways. This procedure shall be repeated as necessary until the Project Plan is free from non-conformities. When the Project Plan is free from non-conformities, Pakistan Railways shall provide confirmation in writing to the Consultant. This approved Project Plan ("the Agreed and Finalized Project Plan") shall be contractually binding on Pakistan Railways and the Consultant.

TABLE OF HOLIDAYS AND OTHER NON-WORKING DAYS

All Pakistan Government Notified Gazette Holiday

Annexure-1

List of Acronyms

Abbreviations	Complete Description
A & AR (T)	Accounts and Approximate Return Section, Traffic Accounts Branch
AVLB	Armed Vehicle Launching Bridge
A & L Section	Aids & Loans Section
A.O.C (T)	Accounts Office Balance Sheet (Coaching) Sub-section Traffic Accounts Branch
A.O.G (T)	Accounts Office Balance Sheet (Goods) Sub-section Traffic Accounts Branch
AAO	Assistant Accounts Officer
AB No.	Account Bill Number
ACCAO	Assistant Chief Cost Accounts Officer
ACD	Assistant Controller of Depots
ACOS	Assistant Controller of Stores
ACP	Assistant Controller of Purchase
ACR	Annual Confidential Report
Admin (G)	Administration Section, General Branch
Admin (T)	Administration Section, Traffic Accounts Branch
AEE	Assistant Electrical Engineer
AEN	Assistant Engineer
AGM	Additional General Manager
AGPR	Accountant General Pakistan Revenue
AGP	Auditor General of Pakistan
AIOW	Assistant Inspector of Works
AL	Absentee List
AMC	Average Monthly Consumption
AME	Assistant Mechanical Engineer
AO	Accounts Officer
AOAS	Administrative Overheads Allocation Statement
APCC	Annual Plan Co-ordination Committee
APO	Assistant Personnel Officer
AS	Assistant Secretary
ASE	Assistant Signal Engineer
ASP	Assistant Superintendent Press
Asstt. Dir. A & L	Assistant Director Aids and Loans Section
ATE	Assistant Telecom Engineer
ATM	Assistant Traffic Manager
B.A. (T)	Booking Agencies Section, Traffic Accounts Branch
B.S. (T)	Balance Sheet Section, Traffic Accounts Branch
BI	Block Inspector
BLI	Ballast Inspector
Books (G)	Books and Budget Section, General Branch

Books (T)	Books Section, Traffic Accounts Branch
BOQ	Bill of Quantity
BPT	Blank Paper Tickets
BPV	Bank Payment Voucher
BRV	Bank Receipt Voucher
C & W	Carriage and Wagon
C.O. (T)	Cash Office, Traffic Accounts Branch
CA	Chartered Accountant
CAN	Computer Adjustment Note
CAO	Chief Accounts Officer
CBA	City Booking Agency
CBU	Complete Build Units
CBS	Central Books Section
CC	Cost Centre
CCAO	Chief Cost Accounts Officer
CCM	Chief Commercial Manager / Chief Chemist and Metallurgist
CCP	Chief Controller of Purchase
CCS	Chief Controller of Stores
CCT	Chief Cashier and Treasurer
CCTO	Chief Cash and Treasury Officer
CDL	Central Diesel Locomotive
CDWP	Central Development Working Party
CFI	Carriage Factory Islamabad
CIA	Chief Internal Auditor
CIP	Chief Inspector Production
CKD	Complete Knocked Down (Units)
CMA	Controller of Military Accounts
CME	Chief Mechanical Engineer
CMM	Chief Marketing Manager
CMO	Chief Medical Officer
CO	Cash Order
CoA	Chart of Accounts
COPS	Chief Operating Superintendent
CPPO	Chief Planning and Project Officer
CPO	Chief Personnel Officer
CPV	Cash Payment Voucher
CR Note	Cash Remittance Note
CR Section	Central Routine Section
CRP	Completion Report
CRV	Cash Receipt Voucher
CSC	China Supplier Credit
CSF	Concrete Sleeper Factory
CTS	Central Transportation Section
CWIP	Capital Work In Progress
CYM	Chief Yard Master
DAO	Divisional Accounts Officer.
DCD	District Controller of Depots
DCOS	District Controller of Stores

DCOS	District Controller of Stores
DCOS (G)	District Controller of Store (General)
DCOS (S)	District Controller of Stores (Shipping)
DCP	District Controller of Purchase
DCPI	District Controller of Purchase and Inspection
DD FIS/MIS	Deputy Director FIS/MIS
DDR	Daily Damage Return
DE	Divisional Engineer (Civil)
DEE	Divisional Electrical Engineer
DEE (ET)	Divisional Electrical Engineer (Electric traction)
DEE (P)	Divisional Electrical Engineer (Power)
DEN	Divisional Engineer
DGAR	Director General Audit Railways
DGM	Deputy General Manager
Dir. FIS / MIS	Director FIS/MIS
DISCO	Distribution Companies
DME	Divisional Mechanical Engineer
DMO	Divisional Medical Officer
DOT	Doubling of Track
DPC	Data Processing Cell
DPM	Divisional Pay Master
DPO	Divisional Personnel Officer
DRF	Depreciation Reserve Fund
DS	Divisional Superintendent
DSE	Divisional Signal Engineer
DSKP	Depot Store Keeper
DTC Book	Daily Trains Cash Book
DTE	Divisional Telecom Engineer
DTO	Divisional Transportation Officer
DTR	Depot Transaction Report
Dy. CCAO	Deputy Chief Cost Accounts Officer
Dy. CCP	Deputy Chief Controller of Purchase
Dy. CCS	Deputy Chief Controller of Stores
Dy. FA & CAO	Deputy Financial advisor and Chief Accounts Officer
Dy.CAO	Deputy Chief Accounts Officer
E (T)	Establishment Section, General Branch
EAD	Economic Affairs Division
EC Section	Enrolment of Contractor Section
ECNEC	Executive Committee & National Economic Council
EFT	Excess Fare Ticket
EG Section	Establishment Gazetted Section
ES	Error Sheet
Ex. Fee	Exchange Risk Fee
F Aid	Foreign Aid
FA	Financial Advisor
FA & CAO	Financial Advisor and Chief Accounts Officer
FA & CAO - M&S	Financial Advisor and Chief Accounts Office-Manufacturing and Services

FA & CAO - PR	Financial Advisor and Chief Accounts Officer-Pakistan Railways
FAA	Foreign Aid Accounts
FBR	Fuel Balance Return
FDI	Fuel Distribution Inspector
FDN	Fuel Dispatch Note
Fgn. (T)	Foreign Section Traffic Accounts Branch
FIS / MIS	Financial Information System/Management Information System
FO	Foreman
FO Store	Foreman Store
FO (R)	Foreman Running
FOB	Free on Board
FOD	Foreman Diesel
FOR	Free on Rail
FR	Fuel Requisition
G.O.C. (T)	Goods Over Charge Sheet Section, Traffic Accounts Branch
G.P.F. (G)	General Provident Section, General Branch
GAAP	Generally Accepted Accounting Principles
GAS	General Accounting Section
GB	General Books
Genl. (T)	General Section Traffic Accounts Branch
GITA	Goods in Transit for Afghanistan
GM	General Manager
GM (Operation)	General Manager (Operation)
GOAS	General Overheads Allocation Statement
Goods Sy. (T)	Goods Summary Section, Traffic Accounts Branch
GP	Gate Passes
GP Fund	General Provident Fund
GPF	General Provident Fund
GPO	General Post Office
GS	General Store
GST	General Sales Tax
GTKM	Gross Tonnes Kilometres
HBA	House Building Advance
HC	Head Clerk
HCDT	Horse, Carriage & Dog Ticket
HOR	High Officials Requisition
HTK	Head Time Keeper
HTXR	Head Train Examiner
I.A. (T)	Inspection Accounts Section, Traffic Accounts Branch
IA Section	Inspection of Accounts Section
IAS	International Accounting Standards
IASB	International Accounting Standards Board
ICAP	Institute of Chartered Accountants of Pakistan
ICG	Inspector of Coaching and Goods
IFRS	International Financial Reporting Standards
IGTN	Inter Grade Transfer Note
IL Section	Import License Section
IMRS	Imprest Material Requisition Schedule

Ins. (G)	Inspection Section
IO	Indenting Officer
IOW	Inspector of Works
IP Section	Invoice Processing Section
ISA	Inspector of Store Accounts / International Standards on Auditing
ISRG	Irrevocable Sovereign Repayment Guarantee
IT	Information Technology
J Tic	Job Tickets
JA	Junior Auditor
JMO	Junior Mechanical Officer
JV	Journal Voucher
KESC	Karachi Electricity Supply Company
KPT	Karachi Port Trust
KVA	Kilo Watt Ampere
L.B. (T)	Loading Bills Section, Traffic Accounts Branch
L.C. (T)	Local Classification Section Traffic Accounts Branch
L.I.C. (T)	Local Invoice Checking Section Traffic Accounts Branch
L.P. (T)	Local Parcel Section, Traffic Accounts Branch
L/C	Letter of Credit
LDC	Lower Divisional Clerk
LDS	Labour Distribution Statement
LESCO	Lahore Electric and Supply Company Limited
LFO	Loco Foreman
LFP	Leave at Full Pay
LHP	Leave at Half Pay
LI	List of Issue
LLHC&D (T)	Local Luggage, Horse, Carriage & Dogs Section, Traffic Accounts Branch
LPC	Last Pay Certificate
LPO	Lost Property Office
LPR	Leave Preparatory to Retirement
LR	List of Receipt
LT	Luggage Ticket
LWP	Leave without Pay
M & S	Manufacturing and Services
M Card	Master Cards
MB	Management Book
MC Note	Miscellaneous Cash Note
MD	Managing Director
MDC Section	Material Data Control Section
MIS	Management Information System
MIT	Material Issue Ticket
MOD	Modernized
MOR	Ministry of Railways
MPC	Master Planning Card
MPG	Material Processing General
MPN	Material Production Note
MR	Material Requisition
MR Note	Miscellaneous Receipt Note

MRTN	Material Return Note
MS	Medical Superintendent
MST	Monthly Season Ticket
MTN	Material Transfer Note
NAM	New Accounting Model
NBP	National Bank of Pakistan
NEC	National Engineering Council
NP Section	New Purchase Section
NR	Nominated Repair
NS Section	New Store Section
NTC & P (T)	Non-issued Ticket Collection & Pass Section, Traffic Accounts Branch
O/C (T)	Overcharge Sheet Coaching
OC	Overcharge Sheet Coaching
OS	Office Superintendent
OSP	Office Superintendent Purchase
OSS	Office Superintendent Stores
OTS	Outturn Statement
p.a	per annum
P.F. (G)	Provident Fund Section, General Branch
P.O. (G)	Pay Office General Branch
PB	Performance Bond
PBCA	Pay Bills Cheque Analysis
PC	Planning Commission
Pension (G)	Pension Section, General Branch
PEPCO	Pakistan Electricity Power Company (Private) Limited
PI Section	Purchase Intelligent Section
PIFRA	Project to Improve Financial Reporting and Auditing
PL	Price List
PLF	Pakistan Locomotive Factory
PO	Pay Order / Purchase Order / Principal Officer
POH	Periodic Overhauling
PPO	Pension Payment Order
PPR	Public Procurement Rules
PPRA	Public Procurement Regulatory Authority
PR	Purchase Requisition/Pakistan Railways
PR HQ	Pakistan Railways Headquarters
PRACS	Pakistan Railway Advisory and Consultancy Services Limited
Pro note	Promissory Note
Proc. (T)	Procedure Section, Traffic Accounts Branch
PRT	Piece Rate Ticket
PS	Payroll Sheet
PSDP	Public Sector Development Program
PTC	Printed Card Ticket
PTO	Privilege Ticket Order
PWI	Permanent Way Inspector
PWS	Piece Work Schedule
RAILCOP	Railway Constructions Pakistan Limited
RC	Recoupment Card

RCL	Railway Standing Counsel
RLY	Railway
RM	Reserved Material Account
RMC Note	Railway Material Consignment Note
RS Branch	Rolling Stock Branch
S.&C. (S)	Survey & Construction Accounts, Stores Accounts Branch
S.A.B	Store Accounts Branch
S.T.E. (T)	Special Ticket Examiner Section, Traffic Accounts Branch
S.TS	Summary of Time Sheets
S.V. (S)	Stock Verification Section, Stores Accounts Branch
SA	Senior Auditor
SAN	Stock Adjustment Note
SAO	Senior Accounts Officer
SAO / S	Senior Accounts Officer / Stores
SBF	Staff Benevolent Fund
SBP	State Bank of Pakistan
SF & AO	Senior Finance and Accounts Officer
SFI	Stationery and Form Inspector
SFO	Senior Finance Officer
SI	Signal Inspector
SI Bond	Stamped Indemnity Bond
SIT	Store In Transit
SLDS	Summary of Labour Distribution Statement
SM	Station Master
SMFY	Store Manufactory
SMO	Senior Mechanical Officer
SNGPL	Sui Northern Gas Pipelines Limited
SOAS	Shop Overheads Allocation Statement
SOS	Senior Office Superintendent
SP	Standard Price
SPM	Sectional Pay Master
SPR Section	Standard Price Revision Section
SSGCL	Sui Southern Gas Company Limited
SSKP	Sub Store Keeper
STE	Special Ticket Examiner
SUR	Stock Usage Report
SV	Stock Verifier
SWD	Special Works Depots
T.A Branch	Traffic Accounts Branch
T.A.O	Travelling Accounts Officer
T.B.M. (T)	Traffic Book Miscellaneous Section, Traffic Accounts Branch
T.C. (T)	Ticket Collection Section Traffic Accounts Branch
TA	Travelling Allowance
TBG	Traffic Book General
TBM	Traffic Book Miscellaneous
TC	Transfer Certificate
TD	Transfer Divisional
TI	Telecom Inspector

TIA	Travelling Inspector of Accounts
TLA	Temporary Labour Application
TP	Ticket Printing
TPS	Ticket Printing Supervisor
TR	Treasury Receipt
TRB	Traffic Book
TS	Time Sheets
TSO	Track Supply Officer
TXR	Train Examiner
UDC	Upper Divisional Clerk
VKM	Vehicle Kilometres
W & M adv.	Ways and Means Advance
w.e.f	with effect from
WAB	Workshop Accounts Branch
WASA	Water and Sanitation Authority
WIP	Work in Process
WKP	Ward Keeper
WM	Works Manager
WMS	Workshop Manufacturing Suspense
WO	Work Order
WR	Work Requisition
WTS (T)	Warrants Section, Traffic Accounts Branch
X (G)	Expenditure Section, General Branch
XEN	Executive Engineer

Anexure-3
HARDWARE DESIGN SPECIFICATION GUIDE LINES

INTRODUCTION

01. The purpose of this document is to provide a hardware systems specifications consideration for implementation document that will lead to the implementation of infrastructure to run the proposed Pakistan Railways Financial Information System / Management Information System.

01.1 The scope of this document covers:

- Systems and Infrastructure specifications at Pakistan Railways Headquarters, Information Technology Directorate.
- Systems and Infrastructure specifications at Pakistan Railways Divisional Headquarters, Accounting Units, Offices, etc.
- Infrastructure connectivity between Pakistan Railways Headquarters and Divisional Headquarters Main Store Depots.

This document has been prepared to provide guidance for the software designer & Developer only.

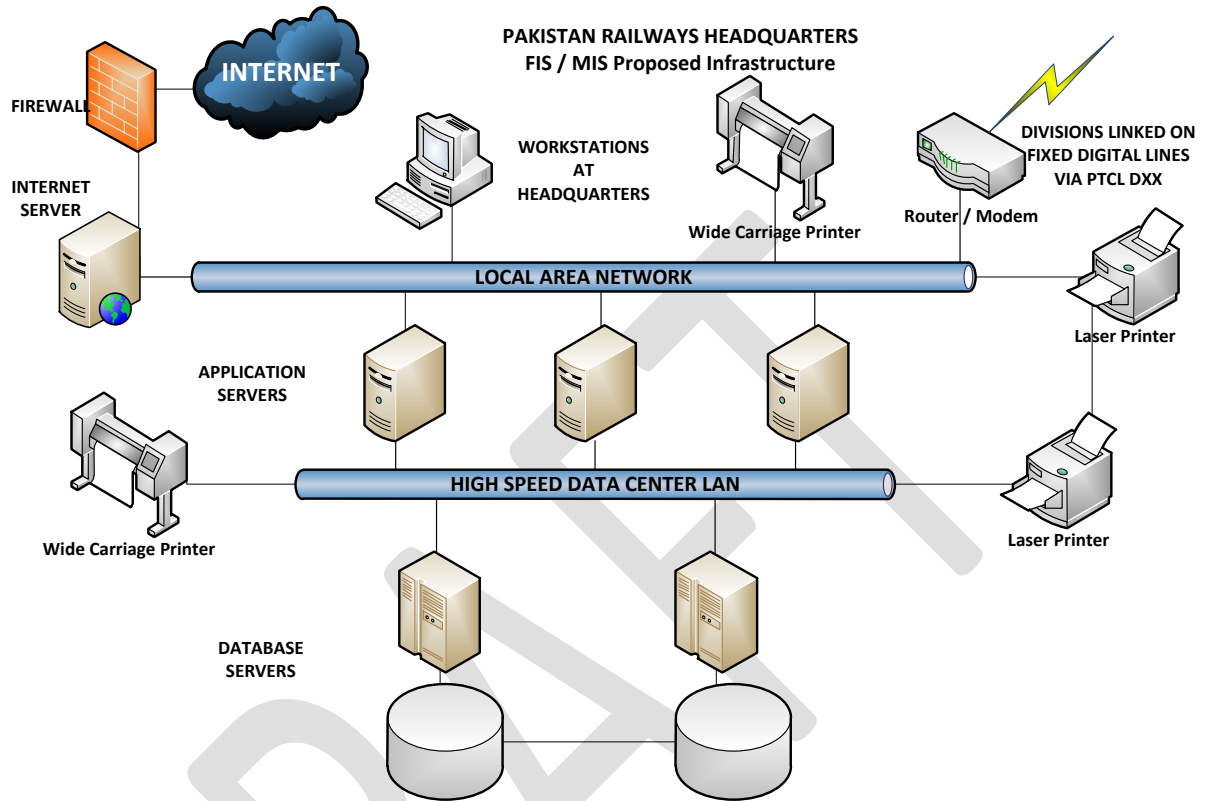
SYSTEMS OVERVIEW

02. Systems within Pakistan Railways Headquarters will conform to N-Tier Architecture. The main components of this design will be:

- Front End Systems
- Local Area Network / Wide Area Network Peripherals
- Application Servers
- Internet Servers
- High Speed Local Area Network Peripherals
- Database Servers

02.1 Pakistan Railways Headquarters FIS / MIS proposed infrastructure is given in the accompanying Table “A”:

Table “A”

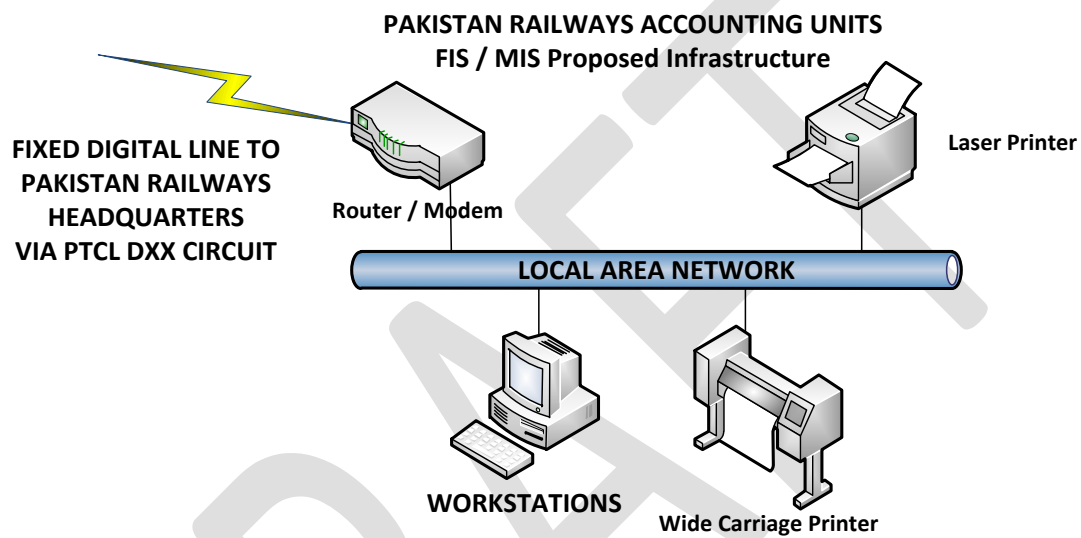


02.2 Systems within Pakistan Railways Divisional Superintendents (DS) Office: The main components of this design will be:

- Front End Systems
- Printers
- Local Area Network / Wide Area Network Peripherals

02.3 Pakistan Railways Accounting Units FIS / MIS proposed infrastructure is given in the accompanying Table “B”:

Table “B”

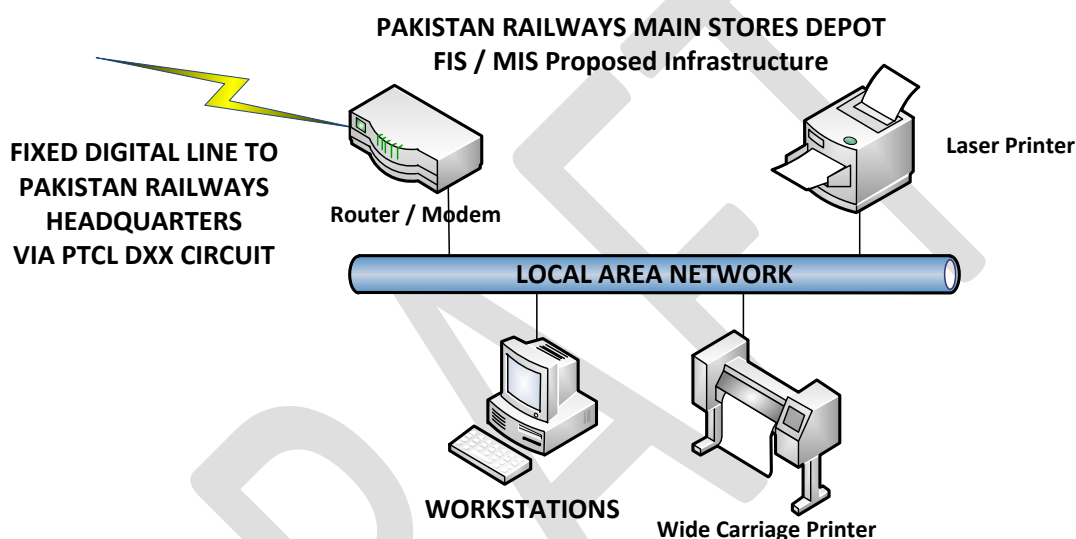


02.4 Systems within Pakistan Railways Accounting Units and Main Stores Depots: The main components of this design will be:

- Front End Systems
- Printers
- Local Area Network / Wide Area Network Peripherals

02.5 Pakistan Railways Stores Depot FIS / MIS proposed infrastructure is given in the accompanying Table “C”:

Table “C”



ASSUMPTIONS AND DEPENDENCIES

03. The following dependencies will be considered:

- All Data Center Systems will be fully compliant for high availability
- Server Operating systems will be Linux/Unix
- Database Servers will be fully compliant with RMBDS Data base

GENERAL CONSTRAINTS

Total Number of Users	:	150
Number of Concurrent Users	:	125
Uptime Requirements	:	24/7

04. The functions to be performed by the Financial Information System / Management Information System (FIS / MIS) are:

- General Ledger
- Costing
 - a. Rail Costing
 - b. Workshops Costing
 - c. Factories Costing
 - i. Carriage Factory Costing
 - ii. Pakistan Locomotive Factory Costing
 - d. Concrete Sleeper Factory Costing
 - e. Project Costing
- Accounts Payable
- Accounts Receivable
 - a. Accrued Earnings
 - b. Advances to Others
- Inventories / Stores
- Purchases
- Fixed Assets
- Payroll
 - a. Employee Loans / Advances
- Foreign Loans / Suppliers' Credit
- Budget
- Human Resource

SYSTEM SPECIFICATIONS

05. The proposed Financial Information System / Management Information System will run on infrastructure that will be setup at Pakistan Railways Headquarters, Lahore.

05.1 The software will be designed and deployed on an N-Tier approach, with the main server components staged at the Pakistan Railways Headquarters, IT Directorate and accessible through a web based front end. This will enable the front end application to run within a browser.

05.2 The proposed infrastructure solution will include the following main components:

SERVERS

05.3 Servers will conform to the following minimum specifications (both application servers and database servers):

Processors -----

Microprocessor type -----

Memory -----

Operating systems -----

STORAGE AREA NETWORK (SAN)

All server systems are required to be stateless, booting from SAN.

Number of Drives -----

Capacity -----

Storage Expansion Options -----

Host Interface -----

Supported Operating Systems -----

Clustering Support -----

Availability -----

Thin Provisioning Support -----

Snapshot Support -----

Replication Support -----

Management -----

WORKSTATIONS

05.4 The number of workstations required is given in the accompanying Table “D”. Workstations will conform to the following minimum specifications:

Processors	-----
Microprocessor type	-----
Memory	-----
Hard Disk	-----
Operating systems	-----
Monitor	-----
Keyboard & Mouse	-----

SWITCHES

05.5 The number of LAN Switches required is given in the accompanying Table “D”. Data Center Switches must provide the following features as a minimum and be capable of 10G connectivity:

- High-Availability Services
- QoS Services
- Scalable, Multi-Device Management Services
- Multicast Services
- Security Services

ROUTERS & FIREWALLS

05.6 Enterprise level routers and firewalls, with the following general capabilities:

- Implements flexible hierarchies
- Supports over 100,000 queues
- Allows all queues to have a minimum, maximum, and excess bandwidth with priority propagation
- Supports thousands of sites
- Supports over a hundred IPsec tunnels
- Offers up to 8-Gbps encryption performance and up to 12-Gbps noncryptographic throughput support
- Provides firewall performance of 5 to 20 Gbps at time of first availability, depending on the embedded services processor
- Offers high-speed logging of a minimum 40,000 sessions per second

PRINTERS (LASER)

05.7 The number of Printers (Laser) required is given in the accompanying Table “D”. Laser Printers, with the following general capabilities:

- With Network card
- Black (normal): Up to 30 ppm
- Monthly duty cycle: Up to 25,000 pages
- Recommended monthly print volume: 500 to 2500 pages
- Paper trays: 2 (1 plus 50-sheet multipurpose input tray)

PRINTERS (WIDE CARRIAGE)

05.8 The number of Printers (Wide Carriage) required is given in the accompanying Table “D”. Printers, with the following general capabilities:

- 24 – PIN Wide Carriage
- 136 columns
- Direct Network capable
- 680 cps.
- Parallel Port connectivity

LOCAL AREA NETWORK

05.9 All High speed Data Center LAN (Pakistan Railways Headquarters) components will be 10 Gigabit per second. (Table “A”)

05.10 All Divisional level and LANs outside the headquarters will be at 100 Megabit per second. Please refer to Table “A” and Table “B” for the number of workstations that are to be supported by the LANs. (Table “B”, Table “C”).

Table “D”

Accounting Unit / Office		Location	Users	Printer (Laser)	Printer (Wide)	Switch	Router
Code	Description						
MIS / HR Reporting and Preparation of Financial Statements							
	AGM Finance	Headquarters	1	1	1		
	F A & CAO (PR)	Headquarters	1	1			
	F A & CAO (Revenue)	Headquarters	1	1			
	F A & CAO (M&S)	Headquarters	1	1			
	Chief Cost Accounts Officer	Headquarters	1	1			
	Dy. Chief Cost Accounts Officers	Headquarters	2	1			
	Assistant Chief Cost Accounts Officers	Headquarters	2	1			
	Director-FIS / MIS	Headquarters	1	1	1		
	Deputy Director-FIS / MIS	Headquarters	1	1			
	Central Books Section Headquarters	Headquarters	2	1	1		
	Budget Branch	Headquarters	1	1			
	CPO Office	Headquarters	5	1			
			19	12	3	0	0

Accounting Unit / Office		Location	Users	Printer (Laser)	Printer (Wide)	Switch	Route r
Code	Description						
Divisional Superintendent Offices and Accounting Units							
000	Senior Accounts Officer / GB HQ (Headquarters, Lahore)	Headquarters	3	1	1		
001	Divisional Accounts Office, Karachi	Karachi	5	1	1	1	1
002	Divisional Accounts Office, Sukkur	Sukkur	4	1	1	1	1
003	Divisional Accounts Office, Multan	Multan	4	1	1	1	1
004	Divisional Accounts Office, Lahore	Lahore	5	1	1	1	1
005	Divisional Accounts Office, Rawalpindi	Rawalpindi	4	1	1	1	1
006	Divisional Accounts Office, Quetta	Quetta	3	1	1	1	1
007	Divisional Accounts Office, WAC/MGPR, (Workshop Accounts Moghalpura)	Moghalpura	8	1		1	1
009	Divisional Accounts Office, Peshawar	Peshawar	3	1	1	1	1
011	SAO/Pension & Funds, Headquarters, Lahore	Headquarters	2	1	1		
012	SAO/Stores, Headquarters, Lahore	Headquarters	2	1			
013	AO/MIS/HQ (IT Centre, HQ, Lahore)	Headquarters	1	1	1		
020	S F&AO/DOT (Doubling of Track, HQ, Lahore)	Headquarters	1	1	1		
023	S F&AO/M&S (Manufacturing and Services, Headquarters, Lahore)	Headquarters	4	1	1		
026	S F&AO/CSF/HQ/LHR (Concrete Sleeper Factories, Lahore)	Headquarters	2	1	1		
015	AO/CDL/Rawalpindi (Central Diesel Locomotive Shop, Rawalpindi)	Rawalpindi	3	1		1	1
017	S F&AO/TR Karachi (Track Rehabilitation Project, Karachi)	Karachi	1	1		1	1
018	S F&AO/EPZ Karachi (Export Processing Zone, Karachi)	Karachi	1	1		1	
019	AO/Dry Port Karachi (Dry Port, Karachi)	Karachi	1	1		1	1
021	S F&AO/MPS/Karachi (Mirpur Khas Project, Karachi)	Karachi	1	1		1	1
022	AO/RBOD/K.C (Right Bank Outfall Drain, Karachi)	Karachi	1	1	1	1	
010	Senior Accounts Office/Revenue, Lahore (Traffic	Lahore	2	1	1	1	1

Accounting Unit / Office		Location	Users	Printer (Laser)	Printer (Wide)	Switch	Route r
Code	Description						
Divisional Superintendent Offices and Accounting Units							
	Accounts, Lahore)						
014	AO/STEEL SHOP/MGPR (Steel Shop, Moghalpura, Lahore)	Moghalpura	1	1		1	1
027	S F&AO/AVLB, MGPR/WAC (Moghalpura Workshop Lahore)	Moghalpura	1	1		1	1
028	S F&AO/H.C.W/MGPR (High Capacity Wagons, Moghalpura, Lahore)	Moghalpura	1	1		1	1
029	S F&AO/RE (Rehabilitation, Moghalpura, Lahore)	Moghalpura	1	1		1	1
016	AO/C&W/Hyderabad (Carriage and Wagon Shop, Hyderabad)	Hyderabad	2	1		1	1
024	SAO/CF/Islamabad (Carriage Factory, Islamabad)	Islamabad	3	1		1	1
031	AO Payment Islamabad (Ministry of Railways, Islamabad)	Islamabad	1	1		1	1
025	SAO/LMF/Risalpur (Locomotive Factory, Risalpur)	Risalpur	3	1		1	1
030	Deputy Director/Walton (Training Centre, Walton, Lahore)	Lahore	1	1		1	1
	A & AO I Project I SPD, Islamabad (Strengthening Planning Directorate)	Islamabad	1	1	1	1	1
	A & AO I Project I 150 DE Locos I CDL Shops, Rawalpindi	Rawalpindi	1	1	1	1	1
	AO I Project I PERMS, Mohgalpura, Lahore (Procurement of Equipment for Improved Security and Anti-terrorism Measures)	Lahore	1	1		1	1
	Accounts Officer / Project I S & C, Headquarters, Lahore	Lahore	1	1		1	1
	A & AO Project I 100 DE Locos I CDL Shops, Rawalpindi	Rawalpindi	1	1	1	1	1
			77	33	18	27	25

Accounting Unit / Office		Location	Users	Printer (Laser)	Printer (Wide)	Switch	Router
Code	Description						
Main Stores Depots and Purchase Offices							
0250	CCS Office, Headquarters, Lahore	Headquarters	4	1	1		
0935	CCP Office, Headquarters, Lahore	Headquarters	12	1	1		
0955	DCPI Karachi	Karachi	2	1		1	1
0953	DCOS Shipping Karachi	Karachi	2	1			
0420	DCOS Karachi Cantt	Karachi Cantt	2	1		1	1
0290	DCOS Moghalpura, Lahore	Moghalpura	1	1		1	1
0957	DCPI Moghalpura, Lahore	Moghalpura	1	1		1	1
0300	CTS Moghalpura, Lahore	Moghalpura	1	1		1	1
0251	DCD Moghalpura, Lahore	Moghalpura	1	1		1	1
0310	Diesel Depot	Rawalpindi	1	1		1	1
0254	ADC/Yard Depot	Moghalpura	1	1		1	1
0256	AEF Main Depot	Moghalpura	1	1		1	
0258	BDG Main Depot	Moghalpura	1	1		1	
0260	Stationery Depot	Moghalpura	1	1		1	1
0262	Steel Depot	Moghalpura	1	1		1	1
0298	Loco Depot	Moghalpura	1	1		1	
0302	Carriage and Wagon Depot	Moghalpura	1	1		1	1
0304	Timber Store Depot	Moghalpura	1	1		1	1
0306	Signal Store Depot	Moghalpura	1	1		1	1
0351	Electric Locomotive Store Depot	Moghalpura	1	1		1	

Accounting Unit / Office		Location	Users	Printer (Laser)	Printer (Wide)	Switch	Router
Code	Description						
Main Stores Depots and Purchase Offices							
0406	Diesel Depot Karachi	Karachi Cantt	1	1		1	1
0408	General Stores Karachi	Karachi Cantt	1	1	1	1	1
0463	Sleeper Depot (HYD)/ Karachi	Karachi (Closed)					
0414	General Stores Depot Sukkur	Sukkur	1	1		1	1
0458	Track Depot Sukkur	Sukkur	1	1		1	1
0454	Track Depot Raiwind	Raiwind	1	1		1	1
0412	Carriage & Wagon Depot Hyderabad	Hyderabad	1	1		1	1
0418	General Stores Quetta	Quetta	1	1		1	1
0460	Sleeper Depot/ Harripurbund	Harripurbund	1	1		1	1
0308	Bridge Store Depot	Jehlum	1	1		1	1
			46	29	3	26	22

Personnel Offices (DPO / APO)		Users	Printer (Laser)	Printer (Wide)	Switch	Router
Karachi Division	Karachi	1				
Lahore Division	Lahore	1				
Multan Division	Multan	1				
Rawalpindi Division	Rawalpindi	1				
Sukkur Division	Sukkur	1				
Quetta Division	Quetta	1				
Peshawar Division	Peshawar	1				
Carriage and Wagon Workshops, Moghalpura	Moghalpura	1				
Carriage Factory Islamabad	Islamabad	1				
Pakistan Locomotive Factory	Risalpur	1				
		10	0	0	0	0

Total No. of Workstations : 150
 Total No. of Printers (Laser) : 72
 Total No. of Printers (Wide) : 21
 Total No. of Switches : 50
 Total No. of Routers : 44

Section 6. Standard Form of Contract

STANDARD FORM OF CONTRACT FOR ENGINEERING CONSULTANCY SERVICES (For Large Projects)

LUMP SUM ASSIGNMENTS

**Available on PEC website (www.pec.org.pk)
and PPRA website (www.ppra.org.pk)**

(Harmonized with PPRA Rules)

June 11, 2007



**PAKISTAN ENGINEERING COUNCIL
ISLAMABAD**

PREFACE

1. Pakistan Engineering Council (PEC) being the statutory regulatory body has been entrusted to regulate the engineering profession in Pakistan. It has carried out standardization of "country specific" documents to regulate and streamline hiring of engineering consultancy services and procurement of works in line with the advice by Planning Commission, Govt. of Pakistan in 1996. Standard Form of Contract for Engineering Consultancy Services (For Large Projects) - Lump Sum Assignments; is one such document prepared by a team of experts comprising employers, constructors and consultants. With the passage of time, this document was developed into a complete contract document which was notified for implementation by Government of Pakistan. On the basis of feedback received from the users of this document and comments from PPRA in September 2005, it is revised upto June 11, 2007. It is expected that use of this document will provide an equitable and just basis for execution of contract agreements for providing engineering consultancy services on lump sum remuneration basis in line with the international practice and relevant PEC Bye-laws thus minimizing ambiguities and likely contractual disputes.
2. This document is primarily based on the standard formats prepared by NESPAK and comprises General Conditions of Contract, Special Conditions of Contract and sample Appendices.
3. This document is to be used for large projects with consultancy fee over Rupees two (2.0) Million.
4. This document has been approved by ECNEC in its meeting on 12th November, 2007. The document has been notified by Planning Commission, Government of Pakistan vide Notification No. 8(60)WR/PC/2008 dated 12th February, 2008. It is, therefore, mandatory for all engineering organizations and departments at Federal and Provincial level and district governments to use this document for procurement of engineering consultancy Services.
5. Any suggestions for improvement shall be appreciated. These may be addressed to Registrar, PEC, Ataturk Avenue, G-5/2, Islamabad (e-mail: registrar@pec.org.pk).

INSTRUCTIONS TO USERS OF THIS DOCUMENT
(Not to be included in the Contract Documents)

1. This document is designed for Engineering Consultancy Contract on "Lump Sum Assignments" basis stipulated in Item-6, Appendix A of "Conduct and Practice of Consulting Engineers Bye-Laws 1986 (SRO 809(1)/86)" issued by the Pakistan Engineering Council. Two other documents for Engineering Consultancy Contracts namely, (a) "Standard Form of Contract for Engineering Services (Time Based) and (b) "Standard Form of Contract for Engineering Consultancy Services for Small Works" are also separately published. It is expected that most of the Engineering Consultancy contracts will generally be covered by the above three documents, however, for any other mode of remuneration to the consultants as stipulated in Appendix-A of the above referred PEC Bye-Laws, the users are to tailor the relevant clause(s) to suit their requirements.
2. This document is recommended for use on such projects where the scope of engineering consultancy services can be fairly estimated and well defined and all inclusive fixed lump sum payment including salary cost, the overheads, the fee and direct non-salary costs is to be made against the services.
3. This document has been developed for use of consultancy services with payment of remunerations in Pakistani Rupees as well as in foreign currencies. However, in case one of the currencies is not used, appropriate modifications shall be made in the "Special Conditions of Contract" and relevant Appendices.
4. No change shall be made by the users in the "General Conditions of Contract" of this document. Any adjustment or change to meet specific project features shall be made only in the "Special Conditions of Contract".
5. Instructions to users are also provided in various places of this document within parenthesis or as Note(s). Users are expected to edit and finalise this document accordingly, by filling all the blank spaces and forms, deleting all the notes and instructions intended to help the users.

CONTRACT FOR ENGINEERING CONSULTANCY SERVICES

between

(NAME OF THE CLIENT)

and

(NAME OF THE CONSULTANTS)

for

OF _____ (BRIEF SCOPE OF SERVICES)
_____ (NAME OF PROJECT)

Month and Year

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FORM OF CONTRACT

- [Notes: 1. Use this Form of Contract when the Consultants perform Services as Sole Consultants.*
- 2. In case the Consultants perform Services as a Member of the joint venture, use the Form included at the end.*
- 3. All notes should be deleted in the final text.]*

This CONTRACT (hereinafter called the "Contract") is made on the ____ day of ____ month) of ____ (year), between, on the one hand _____ (hereinafter called the "Client" which expression shall include the successors, legal representatives and permitted assigns) and, on the other hand, _____ (hereinafter called the "Consultants" which expression shall include the successors, legal representatives and permitted assigns).

WHEREAS

- (a) the Client has requested the Consultants to provide certain consulting services as defined in the General Conditions of Contract attached to this Contract (hereinafter called the "Services"); and
- (b) the Consultants, having represented to the Client that they have the required professional skills, and personnel and technical resources, have agreed to provide the Services on the terms and conditions set forth in this Contract;

NOW THEREFORE the Parties hereby agree as follows:

- 1. The following documents attached hereto shall be deemed to form an integral part of this Contract:
 - (a) the General Conditions of Contract;
 - (b) the Special Conditions of Contract;
 - (c) the following Appendices:

[Note: If any of these Appendices are not used, the words "Not Used" should be inserted below/next to the title of the Appendix and on the sheet attached hereto carrying the title of that Appendix.]

Appendix A : Description of the Services
Appendix B : Reporting Requirements
Appendix C : Key Personnel and Subconsultants
Appendix D : Breakdown of Contract Price in Foreign Currency
Appendix E : Breakdown of Contract Price in Local Currency
Appendix F : Services & Facilities to be Provided by the Client
Appendix G: Integrity Pact (for Services above Rs. 10 million)

2. The mutual rights and obligations of the Client and the Consultants shall be as set forth in the Contract, in particular:
- (a) the Consultants shall carry out the Services in accordance with the provisions of the Contract; and
 - (b) the Client shall make payments to the Consultants in accordance with the provisions of the Contract.

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names in two identical counterparts, each of which shall be deemed as the original, as of the day, month and year first above written.

For and on behalf of

Witness

(CLIENT)

Signatures _____

Signatures _____

Name _____

Name _____

Title _____

Title _____

(Seal)

For and on behalf of

Witness

(CONSULTANTS)

Signatures _____

Signatures _____

Name _____

Name _____

Title _____

Title _____

(Seal)

II. GENERAL CONDITIONS OF CONTRACT

1. GENERAL PROVISIONS

1.1 Definitions

Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) "Applicable Law" means the laws and any other instruments having the force of law in the Islamic Republic of Pakistan, as those may be issued and in force from time to time;
- (b) "Contract" means the Contract signed by the Parties, to which these General Conditions of Contract (GC) are attached, together with all the documents listed in Clause 1 of such signed Contract;
- (c) "Contract Price" means the price to be paid for the performance of the Services, in accordance with Clause 6;
- (d) "Effective Date" means the date on which this Contract comes into force and effect pursuant to Sub-Clause 2.1;
- (e) "GC" means these General Conditions of Contract;
- (f) "Government" means the Government of the Islamic Republic of Pakistan and/or Provincial Government(s);
- (g) "Foreign Currency" means currency other than the currency of Islamic Republic of Pakistan.;
- (h) "Local Currency" means the currency of the Islamic Republic of Pakistan;
- (i) "Member" in case the Consultants consist of a joint venture of more than one entity, means any of the entities, and "Members" means all of these entities;
- (j) "Party" means the Client or the Consultants, as the case may be, and "Parties" means both of them;
- (k) "Personnel" means persons hired by the Consultants or by any Subconsultant as employees and assigned to the performance of the Services or any part thereof;
- (l) "SC" means the Special Conditions of Contract by which the GC are amended or supplemented;

- (m) "Services" means the work to be performed by the Consultants pursuant to this Contract, as described in Appendix A;
- (n) "Subconsultant" means any entity to which the Consultants subcontract any part of the Services in accordance with the provisions of Sub-Clause 3.6;
- (o) "Third Party" means any person or entity other than the Client, the Consultants or a Subconsultant; and
- (p) "Project" means the work specified in SC for which engineering consultancy services are desired.

1.2 Law Governing the Contract

This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.

1.3 Language

This Contract has been executed in the English language which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract. All the reports and communications shall be in the English language.

1.4 Notices

Any notice, request, or consent made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an Authorised Representative of the Party to whom the communication is addressed, or when sent by registered mail, telex, or facsimile to such Party at the address of the Authorised Representatives specified under Sub-Clause SC 1.6. A Party may change its address for notice hereunder by giving the other Party notice of such change.

1.5 Location

The Services shall be performed at such locations as are specified in Appendix A and, where the location of a particular task is not so specified, at such locations as mutually agreed by the Parties.

1.6 Authorised Representatives

Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Client or the Consultants shall be taken or executed by the Authorised Representatives specified in the SC.

1.7 Taxes and Duties

Unless specified in the SC, the Consultants, Subconsultants, and their Personnel shall pay such taxes, duties, fees, and other impositions as may be levied under the Applicable Law, the amount of which is deemed to have been included in the Contract Price.

1.8 Leader of Joint Venture

In case the Consultants consist of a joint venture of more than one entity, the Consultants shall be jointly and severally bound to the Client for fulfillment of the terms of the Contract and designate the Member named in the SC to act as leader of the Joint Venture, for the purpose of receiving instructions from the Client.

2. COMMENCEMENT, COMPLETION, MODIFICATION, AND TERMINATION OF CONTRACT

2.1 Effectiveness of Contract

This Contract shall come into force and effect on the date (the "Effective Date") of the Client's notice to the Consultants instructing the Consultants to begin carrying out the Services. This notice shall confirm that the effectiveness conditions, if any, listed in the SC have been met.

2.2 Termination of Contract for Failure to Become Effective

If this Contract has not become effective within such time period after the date of the Contract signed by the Parties as shall be specified in the SC, either Party may, by not less than twenty eight (28) days written notice to the other Party, declare this Contract to be null and void, and in the event of such a declaration by either Party, neither Party shall have any claim against the other Party except for the work (if any) already done or costs already incurred by a Party at the request of the other Party.

2.3 Commencement of Services

The Consultants shall begin carrying out the Services at the end of such time period after the Effective Date as shall be specified in the SC.

2.4 Expiration of Contract

Unless terminated earlier pursuant to Sub-Clause 2.9, this Contract shall expire when, pursuant to the provisions hereof, the Services have been completed and the payments of remunerations including the direct costs if any, have been made. The Services shall be completed within a period as is

specified in the SC, or such extended time as may be allowed under Sub-Clause 2.6.

The term "Completion of Services" is as specified in the SC.

2.5 Modification

Modification of the terms and conditions of this Contract, including any modification of the scope of the Services or of the Contract Price, may only be made in writing, which shall be signed by both the Parties.

2.6 Extension of Time for Completion

If the scope or duration of the Services is increased:

- (a) the Consultants shall inform the Client of the circumstances and probable effects;
- (b) the increase shall be regarded as Additional Services; and
- (c) the Client shall extend the time for Completion of the Services accordingly.

2.7 Force Majeure

2.7.1 Definition

- (a) For the purposes of this Contract, "Force Majeure" means an event which is beyond the reasonable control of a Party and which makes a Party's performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances, and includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial actions (except where such strikes, lockouts or other industrial actions are within the power of the Party invoking Force Majeure to prevent), confiscation or any other action by government agencies.
- (b) Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or such Party's Subconsultants or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both (A) take into account at the time of the conclusion of this Contract and (B) avoid or overcome in the carrying out of its obligations hereunder.
- (c) Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

2.7.2 No Breach of Contract

The failure of a Party to fulfill any of its obligations under the Contract shall not be considered to be a breach of, or default under this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event; (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract; and (b) has informed the other Party in writing not later than fifteen (15) days following the occurrence of such an event.

2.7.3 Extension of Time

Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

2.7.4 Payments

During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultants shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purpose of the Services and in reactivating the Services after the end of such period.

2.8 Suspension of Payments by the Client

The Client may, by written notice of suspension to the Consultants, suspend all payments to the Consultants hereunder if the Consultants fail to perform any of their obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultants to remedy such failure within a period not exceeding thirty (30) days after receipt by the Consultants of such notice of suspension.

2.9 Termination

2.9.1 By the Client

The Client may terminate this Contract, by not less than thirty (30) days written notice of termination to the Consultants, to be given after the occurrence of any of the events specified in paragraphs (a) through (e) of this Sub-Clause 2.9.1 and sixty (60) days' in the case of the event referred to in paragraph (f):

- (a) if the Consultants do not remedy a failure in the performance of their obligations under the Contract, within thirty (30) days after being

notified or within any further period as the Client may have subsequently approved in writing;

- (b) if the Consultants become (or, if the Consultants consist of more than one entity, if any of their Members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
- (c) if the Consultants fail to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause 7 hereof;
- (d) if the Consultants submit to the Client a statement which has a material effect on the rights, obligations or interests of the Client and which the Consultants know to be false;
- (e) if, as the result of Force Majeure, the Consultants are unable to perform a material portion of the Services for a period of not less than sixty (60) days;
- (f) if the Client, in its sole discretion, decides to terminate this Contract.

2.9.2 By the Consultants

The Consultants may terminate this Contract, by not less than thirty (30) days written notice to the Client, such notice to be given after the occurrence of any of the events specified in paragraphs (a) through (d) of this Sub-Clause 2.9.2:

- (a) if the Client fails to pay any monies due to the Consultants pursuant to this Contract and not subject to dispute pursuant to Clause 7 within forty-five (45) days after receiving written notice from the Consultants that such payment is overdue;
- (b) if the Client is in material breach of its obligations pursuant to this Contract and has not remedied the same within forty-five (45) days (or such longer period as the Consultants may have subsequently approved in writing) following the receipt by the Client of the Consultants' notice specifying such breach;
- (c) if, as a result of Force Majeure, the Consultants are unable to perform a material portion of the Services for a period of not less than sixty (60) days;
- (d) if the Client fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause 7 hereof.

2.9.3 Cessation of Services

Upon receipt of notice of termination under Sub-Clause 2.9.1, or giving of notice of termination under Sub-Clause 2.9.2, the Consultants shall take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to documents prepared by the Consultants, and equipment and materials furnished by the Client, the Consultants shall proceed as provided, respectively, by Sub-Clauses 3.8 or 3.9.

2.9.4 Payment upon Termination

Upon termination of this Contract pursuant to Sub-Clauses 2.9.1 or 2.9.2, the Client shall make the following payments to the Consultants:

- (a) remuneration and reimbursable direct costs expenditure pursuant to Clause 6 for Services satisfactorily performed prior to the effective date of termination. Effective date of termination for purposes of this Sub-Clause means the date when the prescribed notice period would expire;
- (b) except in the case of termination pursuant to paragraphs (a) through (d) of Sub-Clause 2.9.1, reimbursement of any reasonable cost incidental to the prompt and orderly termination of the Contract, including the cost of the return travel of the Personnel, according to Consultants Traveling Allowance Rules.

In order to compute the remuneration for the part of the Services satisfactorily performed prior to the effective date of termination, the respective remunerations shall be proportioned.

2.9.5 Disputes about Events of Termination

If either Party disputes whether an event specified in paragraphs (a) through (e) of Sub-Clause 2.9.1 or in paragraph (a) through (d) of Sub-Clause 2.9.2 hereof has occurred, such Party may, within forty-five (45) days after receipt of notice of termination from the other Party, refer the matter to arbitration pursuant to Clause 7 hereof, and this Contract shall not be terminated on account of such event except in accordance with the terms of any resulting arbitral award.

3. OBLIGATIONS OF THE CONSULTANTS

3.1 General

The Consultants shall perform the Services and carry out their obligations with all due diligence, efficiency, and economy, in accordance with generally

accepted professional techniques and practices, and shall observe sound management practices, and employ appropriate advanced technology and safe methods. The Consultants shall always act, in respect of any matter relating to this Contract or to the Services, as faithful advisers to the Client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with Subconsultants or third parties.

3.2 Consultants Not to Benefit from Commissions, Discounts, etc.

The remuneration of the Consultants pursuant to Clause 6 shall constitute the Consultants' sole remuneration in connection with this Contract or the Services, and the Consultants 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 Consultants shall use their best efforts to ensure that the Personnel, any Subconsultants, and agents of either of them similarly shall not receive any such additional remuneration.

3.3 Confidentiality

The Consultants, their Subconsultants, and the Personnel of either of them shall not, either during the term or after the expiration of this Contract, disclose any proprietary or confidential information relating to the Project, the Services, this Contract, or the Client's business or operations without the prior written consent of the Client.

3.4 Liability of the Consultants

The Consultants are liable for the consequence of errors and omissions on their part or on the part of their employees in so far as the design of the Project is concerned to the extent and with the limitations as mentioned hereinbelow.

If the Client suffers any losses or damages as a result of proven faults, errors or omissions in the design of a project, the Consultants shall make good such losses or damages, subject to the conditions that the maximum liability as aforesaid shall not exceed twice the total remuneration of the Consultants for design phase in accordance with the terms of the Contract.

The liability of the Consultants expires after one (1) year from the stipulated date of completion of construction or after three (3) years from the date of final completion of the design whichever is earlier.

The Consultants may, to protect themselves, insure themselves against their liabilities but this is not obligatory. The extent of the insurance shall be up to the limit specified in second para above. The Consultants shall procure the necessary cover before commencing the Services and the cost of procuring such cover shall be borne by the Consultants up to a limit of one percent of the

total remuneration of the Consultants for the design phase for every year of keeping such cover effective.

The Consultants shall, at the request of the Client, indemnify the Client against any or all risks arising out of the furnishing of professional services by the Consultants to the Client, not covered by the provisions contained in the first para above and exceeding the limits set forth in second para above provided the actual cost of procuring such indemnity as well as costs exceeding the limits set forth in fourth para above shall be borne by the Client.

3.5 Other Insurance to be Taken out by the Consultants

The Consultants (a) shall take out and maintain, and shall cause any Subconsultants to take out and maintain, at their (or the Subconsultants', as the case may be) own cost but on terms and conditions approved by the Client, insurance against the risks, and for the coverage, as are specified in the SC; and (b) at the Client's request, shall provide evidence to the Client showing that such insurance has been taken out and maintained and that the current premiums have been paid.

3.6 Consultants' Actions Requiring Client's Prior Approval

The Consultants shall obtain the Client's prior approval in writing before taking any of the following actions:

- (a) appointing such Personnel as are listed in Appendix-C merely by title but not by name;
- (b) entering into a subcontract for the performance of any part of the Services, it being understood (i) that the selection of Subconsultants and the terms and conditions of the subcontract shall have been approved in writing by the Client prior to the execution of the subcontract, and (ii) that the Consultants shall remain fully liable for the performance of the Services by the Subconsultants and its Personnel pursuant to this Contract;
- (c) any other action that may be specified in the SC.

3.7 Reporting Obligations

The Consultants shall submit to the Client the reports and documents specified in Appendix B in the form, in the numbers, and within the periods set forth in the said Appendix.

3.8 Documents Prepared by the Consultants to be the Property of the Client

All plans, drawings, specifications, reports, and other documents and software prepared by the Consultants in accordance with Sub-Clause 3.7 shall become

and remain the property of the Client, and the Consultants shall, not later than upon termination or expiration of this Contract, deliver (if not already delivered) all such documents and software to the Client, together with a detailed inventory thereof. The Consultants may retain a copy of such documents and software.

Restriction(s) about the future use of these documents is specified in the SC.

3.9 Equipment and Materials Furnished by the Client

Equipment and materials made available to the Consultants by the Client, or purchased by the Consultants with funds provided exclusively for this purpose by the Client, shall be the property of the Client and shall be marked accordingly. Upon termination or expiration of this Contract, the Consultants shall make available to the Client an inventory of such equipment and materials and shall dispose of such equipment and materials in accordance with the Client's instructions or afford salvage value of the same. While in possession of such equipment and materials, the Consultants, unless otherwise instructed by the Client in writing, shall insure them at the expense of the Client in an amount equal to their full replacement value.

3.10 Accounting, Inspection and Auditing

The Consultants (i) shall keep accurate and systematic accounts and records in respect of the Services hereunder, in accordance with internationally accepted accounting principles and in such form and detail as will clearly identify all relevant time charges, and cost, and the basis thereof, and (ii) shall permit the Client or its designated representatives periodically, and up to one year from the expiration or termination of this Contract, to inspect the same and make copies thereof as well as to have them audited by auditors appointed by the Client.

4. CONSULTANTS' PERSONNEL AND SUBCONSULTANTS

4.1 Description of Personnel

The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Consultants' Key Personnel are described in Appendix C. The Key Personnel and Subconsultants listed by title and/or by name, as the case may be, in Appendix C are deemed to be approved by the Client.

4.2 Removal and/or Replacement of Personnel

- (a) Except as the Client may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Consultants, it becomes necessary to replace any of the Key Personnel, the Consultants shall provide as a replacement a person of equivalent or better qualifications;

- (b) If the Client, (i) finds that any of the Personnel have committed serious misconduct or have been charged with having committed a criminal action; or (ii) has reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Consultants shall, at the Client's written request specifying the grounds therefor, provide as a replacement a person with qualifications and experience acceptable to the Client.
- (c) Except as the Client may otherwise agree, the Consultants shall; (i) bear all the additional travel and other costs arising out of or incidental to any removal and/or replacement; and (ii) bear any additional remuneration, to be paid for any of the Personnel provided as a replacement to that of the Personnel being replaced.

5. OBLIGATIONS OF THE CLIENT

5.1 Assistance, Coordination and Approvals

5.1.1 Assistance

The Client shall use its best efforts to ensure that the Client shall:

- (a) provide at no cost to the Consultants, Subconsultants and Personnel such documents prepared by the Client or other consulting engineers appointed by the Client as shall be necessary to enable the Consultants, Subconsultants or Personnel to perform the Services. The documents and the time within which such documents shall be made available, are as specified in the SC;
- (b) assist to obtain the existing data pertaining or relevant to the carrying out of the Services, with various Government and other organisations. Such items unless paid for by the Consultants without reimbursement by the Client, shall be returned by the Consultants upon completion of the Services under this Contract;
- (c) issue to officials, agents and representatives of the concerned organisations, all such instructions as may be necessary or appropriate for prompt and effective implementation of the Services;
- (d) assist to obtain permits which may be required for right-of-way, entry upon the lands and properties for the purposes of this Contract;
- (e) provide to the Consultants, Subconsultants, and Personnel any such other assistance and exemptions as may be specified in the SC.

5.1.2 Co-ordination

The Client shall:

- (a) coordinate and get or expedite any necessary approval and clearances relating to the work from any Government or Semi-Government Agency, Department or Authority, and other concerned organization named in the SC.
- (b) coordinate with any other consultants employed by him.

5.1.3 Approvals

The Client shall accord approval of the documents within such time as specified in the SC, whenever these are applied for by the Consultants.

5.2 Access to Land

The Client warrants that the Consultants shall have, free of charge, unimpeded access to all land of which access is required for the performance of the Services.

5.3 Change in the Applicable Law

If, after the date of this Contract, there is any change in the Applicable Law which increases or decreases the cost of the Services rendered by the Consultants, then the remunerations and direct costs otherwise payable to the Consultants under this Contract shall be increased or decreased accordingly, and corresponding adjustment shall be made to the amounts referred to in Sub- Clause 6.2 (a) or (b), as the case may be.

5.4 Services and Facilities

The Client shall make available to the Consultants, Subconsultants and the Personnel, for the purpose of the Services and free of any charge, the services, facilities and property described in Appendix F at the times and in the manner specified in said Appendix F, provided that if such services, facilities and property shall not be made available to the Consultants as and when so specified, the Parties shall agree on; (i) any time extension that it may be appropriate to grant to the Consultants for the performance of the Services; (ii) the manner in which the Consultants shall procure any such services, facilities and property from other sources; and (iii) the additional payments, if any, to be made to the Consultants as a result thereof pursuant to Clause 6 hereinafter.

5.5 Payments

In consideration of the Services performed by the Consultants under this Contract, the Client shall make to the Consultants such payments and in such manner as is provided by Clause 6 of this Contract.

6. PAYMENTS TO THE CONSULTANTS

6.1 Lump Sum Remuneration

The Consultants' total remuneration shall not exceed the Contract Price and shall be a fixed lump sum including all staff costs, incurred by the Consultants in carrying out the Services described in Appendix A. Other reimbursable direct costs expenditure, if any, are specified in the SC. Except as provided in Sub-Clause 5.3, the Contract Price may only be increased above the amounts stated in Sub-Clause 6.2 if the Parties have agreed to additional payments in accordance with Sub-Clauses 2.5, 2.6, 5.4 or 6.6.

6.2 Contract Price

- (a) Foreign currency payment shall be made in the currency or currencies specified as foreign currency or currencies in the SC, and local currency payment shall be made in Pakistani Rupees.
- (b) The SC shall specify the break up of remuneration to be paid, respectively, in foreign and in local currencies.

6.3 Terms and Conditions of Payment

Payment will be made to the account of the Consultants and according to the payment schedule stated in the SC. Payments shall be made after the conditions listed in the SC for such payments have been met, and the Consultants have submitted an invoice to the Client specifying the amount due.

6.4 Period of Payment

- (a) Advance payment to the Consultants shall be affected within the period specified in the SC, after signing of the Contract Agreement between the Parties.
- (b) Any other amount due to the Consultants shall be paid by the Client to the Consultants within twenty-eight (28) days in case of local currency and fifty six (56) days in case of foreign currency after the Consultants' invoice has been delivered to the Client.

6.5 Delayed Payments

If the Client has delayed payments beyond the period stated in paragraph (b) of Sub-Clause 6.4, financing charges shall be paid to the Consultants for each day of delay at the rate specified in the SC.

6.6 Additional Services

Additional Services means:

- (a) Services as approved by the Client outside the Scope of Services described in Appendix A;
- (b) Services to be performed during the period extended pursuant to Sub-Clause 2.6, beyond the original schedule time for completion of the Services; and
- (c) any re-doing of any part of the Services as a result of Client's instructions.

If, in the opinion of the Client, it is necessary to perform Additional Services during the currency of the Contract for the purpose of the Project, such Additional Services shall be performed with the prior concurrence of both the Parties. The Consultants shall inform the Client of the additional time (if any), and the additional remuneration and reimbursable direct costs expenditure for such Additional Services. If there is no disagreement by the Client within two weeks of this intimation, such additional time, remuneration and reimbursable direct costs expenditure shall be deemed to become part of the Contract. Such remuneration and reimbursable direct costs expenditure shall be determined on the basis of rates provided in Appendices D and E, in case the Additional Services are performed during the scheduled period of the Services, otherwise remuneration for Additional Services shall be determined on the basis of Consultants' billing rates prevailing at the time of performing the Additional Services.

6.7 Consultants' Entitlement to Suspend Services

If the Client fails to make the payment of any of the Consultants' invoice (excluding the advance payment), within twenty-eight (28) days after the expiry of the time stated in paragraph (b) of Sub-Clause 6.4, within which payment is to be made, the Consultants may after giving not less than fourteen (14) days' prior notice to the Client, suspend the Services or reduce the rate of carrying out the Services, unless and until the Consultants have received the payment.

This action will not prejudice the Consultants entitlement to financing charges under Sub-Clause 6.5.

7. SETTLEMENT OF DISPUTES

7.1 Amicable Settlement

The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.

7.2 Dispute Settlement

Any dispute between the Parties as to matters arising pursuant to this Contract which cannot be settled amicably within thirty (30) days after receipt by one Party of the other Party's request for such amicable settlement may be submitted by either Party for settlement in accordance with the provisions of the Arbitration Act, 1940 (Act No.X of 1940) and of the Rules made thereunder and any statutory modifications thereto.

Services under the Contract shall, if reasonably possible, continue during the arbitration proceedings and no payment due to or by the Client shall be withheld on account of such proceedings.

8. INTEGRITY PACT

8.1 If the Consultant or any of his Subconsultants, agents or servants is found to have violated or involved in violation of the Integrity Pact signed by the Consultant as Appendix-G to this Form of Contract, then the Client shall be entitled to:

- (a) recover from the Consultant an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by the Consultant or any of his Subconsultant, agents or servants;
- (b) terminate the Contract; and
- (c) recover from the Consultant any loss or damage to the Client as a result of such termination or of any other corrupt business practices of the Consultant or any of his Subconsultant, agents or servants.

On termination of the Contract under Sub-Para (b) of this Sub-Clause, the Consultant shall proceed in accordance with Sub-Clause 2.9.3. Payment upon such termination shall be made under Sub-Clause 2.9.4 (a) after having deducted the amounts due to the Client under Sub-Para (a) and (c) of this Sub-Clause.

III. SPECIAL CONDITIONS OF CONTRACT

No. Amendments of, and Supplements to, Clauses in the General Conditions
of GC of Contract
Clause

1.1 Definitions

(p) "Project" means

1.6 Authorised Representatives

The Authorised Representatives are the following:

For the Client:

Telephone : _____
Facsimile : _____
E.Mail : _____

For the Consultants:

Telephone : _____
Facsimile : _____
E.Mail : _____

1.7 Taxes and Duties

[Note: To be included in this Sub-Clause as agreed with the Client.]

[All notes should be deleted in final text. All blanks should be filled in.]

1.8 Leader of the Joint Venture

The leader of the Joint Venture is (name of the Member of the Joint Venture).

[Note: If the Consultants do not consist of more than one entity, the Sub-Clause-1.8 should be deleted.]

2.1 Effectiveness of Contract

The date on which this Contract shall come into effect is the date when the Contract is signed by both the Parties and the amount of advance payment due upon signing of the Contract is received by the Consultants.

2.2 Termination of Contract for Failure to Become Effective

The time period shall be days, or such other period as the Parties may agree in writing.

[Note: Fill in the time period e.g one hundred twenty (120) days.]

2.3 Commencement of Services

The Consultants shall commence the Services within twenty-one (21) days after the date of signing of Contract Agreement, or such other time period as the Parties may agree in writing.

2.4 Expiration of Contract

The period of completion of Services shall be ----- days from the Commencement Date of the Services or such other period as the Parties may agree in writing. The Services are estimated to be completed before 20...

"Completion of Services" means.....
.....
.....

3.5 Insurance to be Taken out by the Consultants

The risks and the coverages shall be as follows:

- (a) Third Party motor vehicle liability insurance in respect of motor vehicles operated in Pakistan by the Consultants or their Personnel or any Subconsultants or their Personnel, with a minimum coverage of Rs.....

- (b) Insurance against loss of or damage to equipment purchased in whole or in part with funds provided under the Contract.

3.6 Consultants' Actions Requiring Client's Prior Approval

The Consultants shall also clear with the Client, before commitments on any action they propose to take under the following:

- i) Issuing Variations Orders in respect of:
 - additional items of Works as determined by the Engineer to be necessary for the execution of Works.
 - any new item of the Works not envisaged in the Contract Documents and which is determined by the Engineer to be necessary for the execution of Works.
 - any item of Works covered under Provisional Sums
- ii) Claim from the Contractor for extra payment with full supporting details and Consultants recommendations, if any, for settlement.
- iii) Details of any nominated sub-contracts.
- iv) Any action under terms of Performance Guarantee or Insurance Policy.
- v) Any action by the Consultants affecting the costs under the following clauses of Conditions of Contract of the Construction Contract.
 - Adverse Physical Conditions and Artificial Obstructions
 - Suspension of Works
 - Bonus and Liquidated Damages
 - Certificate of Completion of Works
 - Defects Liability Certificate
 - Forfeiture
 - Special Risks
 - Frustration
- vi) Final Measurement Statement
- vii) Release of Retention Money
- viii) Any change in the ratios of various currencies of payment.

3.8 Documents Prepared by the Consultants to be the Property of the Client

The Client and the Consultants shall not use these documents for purposes unrelated to this Contract without the prior written approval of the other Party.

5.1.1 Assistance

- (a) The Client shall make available within days from the Commencement Date, the documents namely
.....
.....

This list if warranted shall be supplemented subsequently.

- (e) Other assistance and exemptions to be provided by the Client are.....
.....

5.1.2 Coordination

- (a) The departments and agencies include
.....
.....

5.1.3 Approvals

The Client shall accord approval of the documents immediately but not later than fourteen (14) days from the date of their submission by the Consultants.

6.1 Lump Sum Remuneration

[Note: In case there are other expenditures in respect of which reimbursement is allowed in addition to the lump sum remuneration, details of such reimbursable direct costs expenditure which may include Subconsultants' costs, printing, communications, travel, accommodation etc., may be indicated herein. Each item shall be specified whether it is payable on the basis of (a) lump sum monthly rate; or (b) reimbursement of actual expenditures.]

6.2 Contract Price

- (a) The amount in foreign currency is
The amount in local currency is Pakistani Rupees.....
- (b) The break up of foreign and local currencies shall be as under:
- For Planning and Designing, total foreign currency comprising (Name the currency/currencies) is and total Pak Rs. is
 - For Construction supervision, total foreign currency comprising.....(Name the currency/currencies) is..... and total Pak Rs. is

6.3 Terms and Conditions of Payment

[Note: Terms and Conditions of Payment provided below is meant for sample reference. This should be edited on case to case basis as per scope of work of the engineering consultancy services of the specific project.]

For Planning and Design

A lump sum amount in foreign and local currencies against Planning and Design referred under SC 6.2 shall be paid to the Consultants for the Services to be completed within the period specified in SC 2.4.

Payments shall be made according to the following schedule:

(a)	Advance Payment upon signing of Contract Agreement	@ 15% = Rs.-----
(b)	Upon submission of Inception Report	@ 10% = Rs.-----
(c)	Upon submission of Detailed Design Report	@ 40% = Rs.-----
(d)	Upon submission of Draft Bidding Documents	@ 25% = Rs.-----
(e)	Upon submission of Final Bidding Documents	@ 5% = Rs.-----
(f)	Upon submission of Bid Evaluation Report	@ 5% = Rs.-----
<hr/>		
Total		100% = Rs.-----
		<hr/>

For Construction Supervision

(a) A lump sum amount in foreign and local currencies referred under SC 6.2 against Construction Supervision shall be paid to the Consultants for the Services to be completed within a period specified in SC 2.4.

(b) Payment shall be made according to the following schedule:

- (i) An advance payment of% of foreign currency and% of local currency, shall be made within() days of signing of the Contract Agreement. The advance payment will be set off by the Client in(give numbers) equal installments against the statements until the advance payment has been fully set off. First installment for the set off shall be made....
- (ii) An amount of Rs.....(amount in words) shall be paid per month for months. In case the Services are completed before the scheduled date of completion stated in Clause 2.4, the balance amount shall be paid to the Consultants with their final bill.

- (c) As soon as practicable and preferably within thirty (30) days after the end of each calendar month during the period of the Services, the Consultants shall submit their bill in duplicate to the Client. Supporting documents shall be submitted for reimbursable direct costs expenditure, if any.

6.4 Period of Payment

- (a) The time period for advance payment shall be() days after signing of Contract Agreement by both the Parties. (Fill in the time period e.g. thirty (30) days).

6.5 Delayed Payments

Financing charges are as under:

- (i) for foreign currency = ----- percent (___%) per annum
(ii) for local currency = eight percent (8%) per annum.