Bidding Document

For

Supply of Online Fiscal Point of Sale Integration with Tax (OFPOSIT) System and Allied Services for Sindh Revenue Board-Karachi-Pakistan

PART ONE (FIXED)

- Instructions to Bidders (ITB)

- General Conditions of Contract (GCC)

INVITATION FOR BIDS

Date: _____
Bid Reference No.: _____

1. Sindh Revenue Board (SRB) invites sealed bids from reputed (National/International) firms/suppliers/contractors or consortiums for the procurement of **Online Fiscal Point of Sale Integration with Tax** (OFPOSIT) system and allied services.

2. A complete set of Bidding Documents may be purchased by interested bidders on submission of a written application to SRB at the address given below on payment of a non-refundable fee of PKR 1000 (*Pak Rupees One Thousand only*). ―Bidding― Documents can also be downloaded from the official websites of Sindh Public Procurement Regulatory Authority (SPPRA) and SRB. Tender Fee, in such cases should be paid before submission of the bids.

3. All bids must be accompanied by a Bid Security equal to 5% (five percent) of the bid price (*in the form of pay order / demand draft / bank guarantee*) and must be delivered to SRB office by the bid submission deadline. Bids will be opened at 1530 hours on the same day in the presence of bidders' representatives who choose to attend, at the same address.

4. The bidders are requested to give their best and final prices as no negotiations are expected.

DEFINITIONS

TERM	MEANING
Bid(s)	Means any and all bids submitted by the Bidders in response to the Notice Inviting Tender (NIT) –for this Project as prepared and submitted in accordance with this Bidding Documents and the terms and conditions specified therein.
Bid Data Sheet	Means the instructions to the bidder as contained in Part One Section 1 of this document.
Bid Deadline	Means the deadline for submission of Bidding Documents as stated in NIT and the subsequent corrigendum thereto.
Bidding Documents	Means this entire document, including all volumes, appendices, and addenda thereto and set out in ITB 5.1
Bid Validity Period	Means the period of one hundred and twenty (120) days starting from the Bid Submission Deadline.
Bidder	Means an enterprise or consortium that submits a Proposal in accordance with this Bidding Documents and in accordance with the Sindh Public Procurement Rules 2010.
Claims	Means claims, legal action, lawsuits, grounds for action, debts, royalties, accounts, bonds, guarantees, actions for contribution, indemnity, commitments, contracts, losses (including indirect losses), damages, costs, grievances, enforcement, rulings, obligations, debts (including those related to or stemming from a lost opportunity), demands, and rights of any nature whatsoever, whether actual, pending, potential, or possible, legal, express or implicit, present or future, and known or unknown.
Contract	Means the General and Special Conditions of the Contract as well as the Contract Form and the documents mentioned therein.
Contract Agreement	Means the agreement entitled "Contract Agreement" to be entered into between the SRB and the Supplier that sets forth the detailed terms and conditions for the contract, and contains, among other things, the Technical Specifications; the scope of the work to be provided by the Supplier and its obligations; the end of term requirements and other commercial terms.
Contract Period	Means the period commencing from the date of execution of the Contract Agreement and ending on the date falling on the earlier of: (i) 3 years following the Contract Agreement signing date; and (ii) termination of the Contract Agreement.

IT Specialist / Experts	Means an Information Technology Professional with Internationally recognized qualification such as, PMP, OCP, MCP, CCNA, CCIE, CIW, CIS, ITIL, Web-Master and further having 3 years or more of professional experience in IT.
Consortium	Means a Bidder comprising of a group of two or more enterprises formed to submit a Bid and, if applicable, to carry out the Contract.
Consortium Power of Attorney	Means the power of attorney, to be signed by all the members of the Consortium appointing the Lead Member of the Consortium as the authorized representative of the Consortium. It will be in the form **ANNEXURE-C** as attached with this Bidding Document.
Competitive Selection Process	Means a process that includes this Bidding Documents; consultation with Bidders; attendance at the Pre-Bid Conference; issuance of a draft or revised version(s) of the Contract Agreement; receipt and consideration of comments from Bidders and information provided in response to a request from the SRB; evaluation of the proposals submitted in response to this Bidding Document; selection of a Preferred Bidder; preparation, acceptance, or rejection of any Bid; amendment, cancellation, interruption, or termination of the Bidding Document; and execution of the Draft Contract Agreement.
Draft Contract Agreement	Means the contract form provided vide Section VI of this document and includes the list of documents as provided in clause 2 of the Contract Form.
Government	Means Government of Sindh.
Insurance(s)	Means those mentioned in the General Conditions of the Contract.
Integrity Pact	Means the instrument entitled 'Integrity Pact' as attached with this Bidding Document, duly signed by the Bidder. The Integrity Pact shall be executed by the SRB upon execution of the Contract Agreement.
ITB	Means instructions to Bidders.
Joint Bidding Agreement	Means the agreement between the members of a Consortium, conveying, *inter alia*, the intent to form a joint venture in terms of this Bidding Document.
Lead Member	Means any member of the Consortium that leads the Consortium throughout the Project and liaises between SRB and the Consortium, as appointed pursuant to the Joint Bidding Agreement and Consortium Power of Attorney.
Notification of Award	Refers to the meaning ascribed to it in ITB 31.

Member	Means an enterprise that is member of a Joint Venture or Consortium in this bidding process.
NIT	Means the notice inviting tenders
O&M	Means the operation and maintenance of the OFPOSIT System.
Performance Security	Means the first demand irrevocable and unconditional guarantee, issued by a scheduled bank in Pakistan (with a minimum credit rating 'A' as rated by JCR VIS or an equivalent rating by PACRA) acceptable to the SRB. It must be in the form of either a demand guarantee or a standby letter of credit, guaranteeing the payment to the SRB of an amount equal to ten per cent (10%) of the Bid Price for the circumstances set out in the Draft Contract Agreement, in the form of the instrument attached to the Draft Contract Agreement.
Pre-Bid Conference	Means the conferences convened before opening of the bids in order to address the queries raised and clarifications sought by the prospective Bidders. The date and time for such meeting is set out in the Bid Data Sheet of this Bidding Document.
Successful Bidder	Means the Bidder selected pursuant to this Bidding Document.
Project	Means the project referred to in this Bidding Document and to be executed in accordance with the Contract.

TERM	MEANING
Project Milestone	As defined in the Bidding Document.
Project Requirements	As defined in the Bidding Document.
Security Deposit / Bid Security	Means the first demand irrevocable and unconditional guarantee, issued by a scheduled bank in Pakistan (with a minimum credit rating 'A' as rated by JCR VIS or an equivalent rating by PACRA) acceptable to the Sindh Revenue Board. It must be in the form of either a demand guarantee or a standby letter of credit, guaranteeing the payment to the SRB of an amount equal to five per cent (5%) of the Bid Price for the circumstances set out in the Bidding Document. Format of the security is appended with this Bidding Document.
SPP Rules	Means the Sindh Public Procurement Rules, 2010 (as amended from time to time).

SRB	Means the Sindh Revenue Board.
Supplier	Means the successful bidder as mentioned in the Notification of Award of the Contract.

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Part One - Section I.

Instructions to Bidders

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Instructions to Bidders

A. Introduction

1. Source of Funds

1.1 Sindh Revenue Board (SRB) has received /applied for provincial government funds from the source(s) indicated in the bidding data in various currencies towards the cost of the Project specified in the bidding data and it is intended that part of the proceeds of this loan/grant/funds/ will be applied to eligible payments under the Contract.

1.2 Payment from the allocated fund account will only be made at the request of the SRB upon approval by the Government of Sindh and in case of a project will be subject to the terms and conditions of the agreement.

2. Eligible Bidders

2.1 This Invitation for Bids is open to all suppliers from eligible source countries as defined in the SPP Rules, 2010 and its Bidding Documents except as provided hereinafter.

2.3 Please see ITB 35 for the eligibility conditions in case of consortium and JVs

2.2 Bidders should not be associated, or have been associated in the past, directly or indirectly, with a firm or any of its affiliates which have been engaged by the SRB to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the goods to be purchased under this Invitation for Bids.

2.3 Government-owned enterprises in the Province of Sindh may participate only if they are legally and financially autonomous, if they operate under commercial law, and if they are not a dependent agency of the Government of Sindh.

2.4 Bidders shall not be eligible to bid if they are under a declaration of ineligibility for corrupt and fraudulent practices issued by

any government organization in accordance with sub clause 34.1

3. Eligible Goods and Services

3.1 All goods and related services to be supplied under the contract shall have their origin in eligible source countries, defined in the SPP Rules, 2010 and the Bidding Documents, and all expenditures made under the contract will be limited to such goods and services.

3.2 For purposes of this clause, "origin" means the place where the goods are mined, grown, or produced or the place from which the related services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially-recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.

3.3 The origin of goods and services is distinct from the nationality of the Bidder.

4. Cost of Bidding

4.1 The Bidder shall bear all costs associated with the preparation and submission of its bid and the SRB will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

B. The Bidding Documents

5. Content of Bidding Documents

5.1 The Bidding Documents include:

(a)   Instructions to Bidders (ITB)
(b)   Bid Data Sheet
(c)   General Conditions of Contract (GCC)
(d)   Special Conditions of Contract (SCC)
(e)   Schedule of Requirements
(f)   Technical Specifications
(g)   Bid Form and Price Schedules
(h)   Bid Security Form
(i)   Contract Form
(j)   Performance Security Form

5.2 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or to submit a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in the

rejection of its bid.

6. Clarification of Bidding Documents

6.1   Any interested Bidder requiring any clarification of the bidding documents may notify the SRB in writing. The SRB will respond in writing to any request for clarification of the bidding documents which it receives no later than three working days prior to the deadline for the submission of bids prescribed in the Bid Data Sheet. Written copies of the SRB's response (including an explanation of the query but without identifying the source of inquiry) will be sent to all interested bidders that have received the bidding documents.

7. Amendment of Bidding Documents

7.1   At any time prior to the deadline for submission of bids, the SRB, for any reason, whether at its own initiative or in response to a clarification requested by an interested Bidder, may modify or amend the Bidding Documents.

7.2   All interested bidders that have received the Bidding Documents will be notified of the amendment in writing, and will be binding on them.

7.3   In order to allow interested bidders reasonable time in which to take the amendment into account in preparing their bids, the SRB, at its discretion, may extend the deadline for the submission of bids.

C. Preparation of Bids

8. Language of Bid

8.1   The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the SRB shall be written in the language specified in the Bid Data Sheet. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the Bid Data Sheet, in which case, for purposes of interpretation of the Bid, the translation shall govern.

9. Documents Comprising the Bid

9.1   The bid prepared by the Bidder shall comprise the following components:

(a)   a Bid Form and a Price Schedule completed in accordance with ITB Clauses 10, 11, and 12;

(b)   documentary evidence established in accordance with ITB

Clause 13 that the Bidder is eligible to bid and is qualified to perform the Contract Agreement if its bid is accepted;

(c)   documentary evidence established in accordance with ITB Clause 14 that the goods and ancillary services to be supplied by the Bidder are eligible goods and services and conform to the bidding documents; and

(d)   bid security furnished in accordance with ITB Clause 15.

10. Bid Form   10.1 The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the Bidding Documents, indicating the goods to be supplied, a brief description of the goods, their country of origin, quantity, and prices.

11. Bid Prices   11.1   The Bidder shall indicate on the appropriate Price Schedule the unit prices (where applicable) and total bid price of the goods it proposes to supply under the contract.

11.2 Prices indicated on the Price Schedule shall be delivered duty paid (DDP) prices. The price of other (incidental) services, if any, listed in the Bid Data Sheet will be entered separately.

11.3 The Bidder's separation of price components in accordance with ITB Clause 11.2 above will be solely for the purpose of facilitating the comparison of bids by the SRB and will not in any way limit the SRB's right to contract on any of the terms offered.

11.4 Prices quoted by the Bidder shall be **<u>fixed</u>** during the Bidder's performance of the contract and not subject to variation on any account, unless otherwise specified in the Bid Data Sheet. A bid submitted with an adjustable price quotation will be treated as nonresponsive and will be rejected, pursuant to ITB Clause 24. If, however, in accordance with the Bid Data Sheet, prices quoted by the Bidder shall be subject to adjustment during the performance of the contract, a bid submitted with a fixed price quotation will not be rejected, but the price adjustment would be treated as zero.

12. Bid Currencies 12.1 Prices shall be quoted in Pak Rupees unless otherwise specified in the Bid Data Sheet.

13. Documents   13.1 Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its
   Establishing   bid, documents establishing the Bidder's eligibility to bid and its
   Bidder's   qualifications to perform the contract if its bid is accepted.

Eligibility and
Qualification 13.2 The documentary evidence of the Bidder's eligibility to bid shall establish to the SRB's satisfaction that the Bidder, at the time of submission of its bid, is from an eligible country as defined under ITB Clause 2.

13.3 The documentary evidence of the Bidder's qualifications to perform the Contract Agreement if its bid is accepted shall establish to the SRB's satisfaction:

(a) that, in the case of a Bidder offering to supply goods under the Contract Agreement which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods' Manufacturer or producer to supply the goods in Pakistan;

(b) that the Bidder has the financial, technical, and production capability necessary to perform the contract;

(c) that, in the case of a Bidder not doing business within Pakistan, the Bidder is or will be (if awarded the contract) represented by an Agent duly authorized by its Principal in Pakistan equipped, and able to carry out the Supplier's maintenance, repair, and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications; and

(d) that the Bidder meets the qualification criteria listed in the Bid Data Sheet.

14. Documents 14.1 Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its
Establishing   bid, documents establishing the eligibility and conformity to the
Goods'   bidding documents of all goods and services which the Bidder
Eligibility and   proposes to supply under the contract.
Conformity to
Bidding   14.2 The documentary evidence of the eligibility of the goods and
Documents   services shall consist of a statement in the Price Schedule of the country of origin of the goods and services offered which shall be confirmed by a certificate of origin issued at the time of shipment.

14.3 The documentary evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings, and data, and shall consist of:

(a) a detailed description of the essential technical and performance characteristics of the goods;

(b) a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for a period to be specified in the Bid Data Sheet, following commencement of the use of the goods by the SRB; and

(c) an item-by-item commentary on the SRB's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications, or a statement of deviations and exceptions to the provisions of the Technical Specifications.

14.4 For purposes of the commentary to be furnished pursuant to ITB Clause 14.3(c) above, the Bidder shall note that standards for workmanship, material, and equipment, as well as references to brand names or catalogue numbers designated by the SRB in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names, and/or catalogue numbers in its bid, provided that it demonstrates to the SRB's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

15. Bid Security

15.1 Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its financial bid, a bid security in the amount specified in the Bid Data Sheet.

15.2 The bid security is required to protect the SRB against the risk of Bidder's conduct which would warrant the security's forfeiture, pursuant to ITB Clause 15.7.

15.3 The bid security shall be in Pak. Rupees and shall be in one of the following forms:

(a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the SRB's country in the form provided in the bidding documents or any another form acceptable to the SRB and valid for thirty (30) days beyond the validity of the bid; or

(b) an irrevocable encashable on-demand Bankers Cheque/ Demand Draft which shall remain valid for thirty (30) days beyond the validity of the bid.

15.4 Any bid not secured in accordance with ITB Clauses 15.1 and 15.3 will be rejected by the SRB as nonresponsive pursuant to ITB Clause 24.

15.5   Unsuccessful bidders' bid security will be discharged or returned as promptly as possible but not later than thirty (30) days after the expiration of the period of bid validity prescribed by the SRB pursuant to ITB Clause 16.

15.6   The successful Bidder's bid security will be discharged upon the preferred Bidder signing the Contract Agreement, pursuant to ITB Clause 32, and furnishing the performance security, pursuant to ITB Clause 33.

15.7   The bid security may be forfeited:

(a)   if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Form; or

(b)   in the case of a successful Bidder, if the Bidder fails:

(i)   to sign the Contract Agreement in accordance with ITB Clause 32;
or

(ii)   to furnish performance security in accordance with ITB Clause 33.

16. Period of Validity of Bids

16.1   Bids shall remain valid for the period specified in the Bid Data Sheet after the date of bid opening prescribed by the SRB, pursuant to ITB Clause 19. A bid valid for a shorter period shall be rejected by the SRB as nonresponsive.

16.2   In exceptional circumstances, the SRB may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. The bid security provided under ITB Clause 15 shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid, except as provided in the bidding document.

17. Format and Signing of Bid

17.1   The Bidder shall prepare an original and the number of copies of the bid indicated in the Bid Data Sheet, clearly marking each "ORIGINAL BID" and "COPY OF BID," as appropriate. In the event of any discrepancy between them, the original shall govern.

17.2   The original and the copy or copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a

person or persons duly authorized to bind the Bidder to the contract. All pages of the bid, except for un-amended printed literature, shall be initialed by the person or persons signing the bid.

17.3 Any interlineations, erasures, or overwriting shall be valid only if they are initialled by the person or persons signing the bid.

17.4 The Bidder shall furnish information as described in the Form of Bid on commissions or gratuities, if any, paid or to be paid to agents relating to this Bid, and to contract execution if the Bidder is awarded the contract.

D. Submission of Bids

18. Sealing and Marking of Bids

18.1 The Bidder shall seal the original and each copy of the Technical and Financial Bids in separate sealed envelopes, duly marking the envelopes as "Technical Proposal" & "Financial Proposal" respectively. One Original and three copies of technical and financial proposal would be required. The envelopes shall then be sealed in an Outer envelope.

18.2 The inner and outer envelopes shall:

(a)   be addressed to the SRB at the address given in the Bid Data Sheet; and

(b)   bear the Project name indicated in the Bid Data Sheet, the Invitation for Bids (IFB) title and number indicated in the Bid Data Sheet, and a statement: "DO NOT OPEN BEFORE," to be completed with the time and the date specified in the Bid Data Sheet, pursuant to ITB Clause 2.2.

18.3 The inner envelopes shall also indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared "late".

18.4 If the outer envelope is not sealed and marked as required by ITB Clause 18.2, the SRB will assume no responsibility for the bid's misplacement or premature opening.

19. Deadline for Submission of Bids

19.1 Bids must be received by the SRB at the address specified under ITB Clause 18.2 no later than the time and date specified in the Bid Data Sheet.

19.2 The SRB may, at its discretion, extend this deadline for the submission of bids by amending the bidding documents in accordance with ITB Clause 7, in which case all rights and

obligations of the SRB and bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

20. Late Bids 20.1 Any bid received by the SRB after the deadline for submission of bids prescribed by the SRB pursuant to ITB Clause 19 will be rejected and returned unopened to the Bidder.

21. Modification and Withdrawal of Bids 21.1 The Bidder may modify or withdraw its bid after the bid's submission provided that written notice of the modification, including substitution or withdrawal of the bids is received by the SRB prior to the deadline prescribed for submission of bids.

21.2 The Bidder's modification or withdrawal notice shall be prepared, sealed, marked, and dispatched in accordance with the provisions of ITB Clause 18 with a signed confirmation copy, postmarked not later than the deadline for submission of bids.

21.3 No bid may be modified after the deadline for submission of bids.

21.4 No bid may be withdrawn in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Form. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its bid security, pursuant to the ITB Clause 15.7.

E. Opening and Evaluation of Bids

22. Opening of Bids by the SRB 22.1 The SRB will open technical bids first in the presence of bidders' representatives who choose to attend, at the time, on the date, and at the place specified in the Bid Data Sheet. The bidders' representatives who are present shall sign a register evidencing their attendance.

22.2 The bidders' names, bid modifications or withdrawals, and the presence or absence of requisite bid security and such other details as the SRB at its discretion may consider appropriate will be announced at the opening. No bid shall be rejected at bid opening, except for late bids, which shall be returned unopened to the Bidder pursuant to ITB Clause 20.

22.3 Bids (and modifications sent pursuant to ITB Clause 21.2) that are not opened and read out at bid opening shall not be considered further for evaluation, irrespective of the circumstances. Withdrawn bids will be returned unopened to the bidders.

22.4 The SRB will prepare minutes of the bid opening.

23. Clarification of Bids

23.1 During evaluation of the bids, the SRB may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing, and no change in the prices or substance of the bid shall be sought, offered, or permitted.

24. Preliminary Examination

24.1 The SRB will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed and whether the bids are generally in order.

24.2 The SRB may waive any minor informality, nonconformity, or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

24.3 Prior to the detailed evaluation, pursuant to ITB Clause 25, the SRB will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these Clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations. Deviations from, or objections or reservations to critical provisions, **such as** those concerning Bid Security (ITB Clause 15), Applicable Law (GCC Clause 30), and Taxes and Duties (GCC Clause 32), will be deemed to be a material deviation. The SRB's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

24.5 If a bid is not substantially responsive, it will be rejected by the SRB and may not subsequently be made responsive by the Bidder by correction of the nonconformity.

25. Evaluation and Comparison of Bids

25.1 The SRB will technically evaluate and compare the bids which have been determined to be substantially responsive, pursuant to ITB Clause 24.

25.2 After technical evaluation, the financial bids of only those bidders whose bids are responsive and who are technically qualified shall be opened.

25.2 The SRB's evaluation of a bid will be on delivered duty paid (DDP) price inclusive of prevailing duties and will exclude any allowance for price adjustment during the period of execution of the Contract Agreement, if provided in the bid.

25.3 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the Supplier does not accept the correction of the errors, its bid will be rejected, and its bid security may be forfeited. If there is a discrepancy between words and figures, the amount in words will prevail.

25.4 The SRB's evaluation of a bid will take into account, in addition to the bid price quoted in accordance with ITB Clause 11.2 one or more of the following factors as specified in the Bid Data Sheet, and quantified in ITB Clause 25.5:
   (a) incidental costs.
   (b) delivery schedule offered in the bid;
   (c) deviations in payment schedule from that specified in the Special Conditions of Contract;
   (d) the cost of components, mandatory spare parts, and service;
   (e) the availability SRB of spare parts and after-sales services for the equipment offered in the bid;
   (f) the projected operating and maintenance costs during the life of the equipment;
   (g) the performance and productivity of the equipment offered; and/or
   (h) other specific criteria indicated in the Bid Data Sheet and/or in the Technical Specifications.

25.5 For factors retained in the Bid Data Sheet pursuant to ITB 25.4, one or more of the following quantification methods will be applied, as detailed in the Bid Data Sheet:

   (a) Incidental costs provided by the bidder will be added by SRB to the delivered duty paid (DDP) price at final destination.

(b) *Delivery schedule.*

(i)   The SRB requires that the goods under the ITB shall be delivered at the time specified in the Schedule of Requirements which will be treated as the base, a delivery "adjustment" will be calculated for bids by applying a percentage, specified in the Bid Data Sheet, of the DDP price for each week of delay beyond the base, and this will be added to the bid price for evaluation. No credit shall be given to early delivery.

or

(ii) The goods covered under this ITB are required to be delivered (shipped) within an acceptable range of weeks specified in the Schedule of Requirement. No credit will be given to earlier deliveries, and bids offering delivery beyond this range will be treated as nonresponsive. Within this acceptable range, an adjustment per week, as specified in the Bid Data Sheet will be added for evaluation to the bid price of bids offering deliveries later than the earliest delivery period specified in the Schedule of Requirements.

or

(iii) The goods covered under the ITB are required to be delivered in partial shipments as specified in the Schedule of Requirements. Bids offering deliveries earlier or later than the specified deliveries will be adjusted in the evaluation by adding to the bid price a factor equal to a percentage, specified in the Bid Data Sheet, of DDP price per week of variation from the specified delivery schedule.

(c) *Deviation in payment schedule.*

(i)   Bidders shall state their bid price for the payment schedule outlined in the SCC. Bids will be evaluated on the basis of this base price. Bidders are, however, permitted to state an alternative payment schedule and indicate the reduction in bid price they wish to offer for such alternative payment schedule. The SRB may consider the alternative payment schedule offered by the selected Bidder.

or

(ii) The SCC stipulates the payment schedule offered by

the SRB. If a bid deviates from the schedule   and   if such   deviation   is   considered acceptable to the SRB, the bid will be evaluated by calculating interest earned for any earlier payments involved in the terms outlined in the bid as compared with those stipulated in this invitation, at the rate per annum specified in the Bid Data Sheet.

(d)   *Cost of spare parts.*

(i)   The list of items and quantities of major assemblies, components, and selected spare parts, likely to be required during the initial period of operation specified in the Bid Data Sheet, is annexed to the Technical Specifications. The total cost of   these items, at the unit prices quoted in each bid, will be added to the bid price.

or

(ii)   The SRB will draw up a list of high- usage and high-value items of components and spare parts, along with estimated quantities of usage in the initial period of operation specified in the Bid Data Sheet. The total cost of these items and quantities will be   computed from   spare   parts   unit   prices submitted by the Bidder and added to the bid price.

or

(iii)   The SRB will estimate the cost of spare parts usage in the initial period of operation specified in the Bid Data Sheet, based on information furnished by each Bidder, as well as on past experience of the SRB or other procuring agencies in similar situations. Such costs shall be added to the bid price for evaluation.

(e)   *Spare parts and after sales service facilities in Pakistan.*

The cost to the SRB of establishing the minimum   service facilities   and   parts inventories as outlined in the Bid Data Sheet or elsewhere in the Bidding Documents if quoted separately shall be added to the bid price.

(f)   *Operating and maintenance costs.*

Since the operating and maintenance costs of the goods under procurement form a major part of their life cycle cost, these costs will be evaluated in accordance with the criteria specified in the Bid Data Sheet or in the Technical Specifications.

(g)   *Performance and productivity of the equipment.*

(i)   Bidders shall state the guaranteed performance or efficiency in response to the Technical Specification. For each drop in the performance or efficiency below the norm of 100, an adjustment for an amount specified in the Bid Data Sheet will be added to the bid price representing the capitalized cost of additional operating costs over the life of the plant, using the methodology specified in the Bid Data Sheet or in the Technical Specifications.

or

(ii) Goods offered shall have a minimum productivity specified under the relevant provision in the Technical Specifications to be considered responsive. Evaluation shall be based on the cost per unit of the actual productivity of goods offered in the bid, and adjustment will be added to the bid price using the methodology specified in the Bid Data Sheet or in the Technical Specifications.

(h)   *Specific additional criteria indicated in the Bid Data Sheet and/or in the Technical Specifications.*

The relevant evaluation method shall be detailed in the Bid Data Sheet and/or in the Technical Specifications.

26. Contacting the SRB

26.1 Subject to ITB Clause 23, no Bidder shall contact the SRB on any matter relating to its bid, from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the SRB, it should do so in writing.

26.2 Any effort by a Bidder to influence the SRB in its decisions on bid evaluation, bid comparison, or contract award may result in the rejection of the Bidder's bid.

F. Award of Contract

**27. Post-
   qualification**

27.1 In the absence of prequalification, the SRB will determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated responsive bid is qualified to perform the contract satisfactorily in accordance with the criteria listed in ITB Clause 13.3.

27.2 The determination will take into account the Bidder's financial, technical, and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB Clause 13.3, as well as such other information as the SRB deems necessary and appropriate.

27.3 An affirmative determination will be a prerequisite for award of the Contract to the Bidder. A negative determination will result in rejection of the Bidder's bid, in which event the SRB will proceed to the next lowest evaluated bid to make a similar determination of that Bidder's capabilities to perform satisfactorily.

**28. Award
   Criteria**

28.1 Subject to ITB Clause 30, the SRB will award the Contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.

29. SRB's Right to Vary Quantities at Time of Award

29.1 The SRB reserves the right at the time awarding the Contract to increase or decrease by the percentage indicated in the Bid Data Sheet, the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.

30. SRB's Right to Accept any Bid and to Reject any or All Bids

30.1 The SRB reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the SRB's action.

31. Notification of Award

31.1 Prior to the expiration of the period of bid validity, the SRB will notify the successful Bidder in writing by registered letter or by cable, to be confirmed in writing by registered letter, that its bid has been accepted.

31.2 The notification of award will constitute the formation of the Contract.

31.3 Upon the successful Bidder's furnishing of the performance security pursuant to ITB Clause 33, the SRB will promptly notify each unsuccessful Bidder and will discharge its bid security pursuant to ITB Clause 15.

32. Signing of Contract

32.1 At the same time as the SRB notifies the successful Bidder that its bid has been accepted, the SRB will send the Bidder the Contract Form provided in the bidding documents, incorporating all agreements between the parties.

32.2 Within thirty (30) days of receipt of the Contract Form, the successful Bidder shall sign and date the contract and return it to the SRB.

33 Performance Security

33.1 Within twenty (20) days of the receipt of notification of award from the SRB, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract in the Performance Security Form provided in the bidding documents or in another form acceptable to the SRB.

33.2 Failure of the successful Bidder to comply with the requirement of ITB Clause 32 or ITB Clause 33.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid

security in which event the SRB may make the award to the next lowest evaluated Bidder or call for new bids.

34. Corrupt or Fraudulent Practices

34.1 The Government of Sindh requires that SRB's (including beneficiaries of donor agencies' loans) as well as Bidders/Suppliers/Contractors under Government-financed contracts observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the SPPRA, in accordance with the SPP Act, 2009 and Rules made thereunder:

   (a) defines, for the purposes of this provision, the terms set forth below as follows:

   (i) "corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution; and

   (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the SRB, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non- competitive levels and to deprive the SRB of the benefits of free and open competition;

   (b) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;

   (c) will declare a firm ineligible, either indefinitely or for a stated period of time, to be awarded a Government-financed contract if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a Government-financed contract.

34.2 Furthermore, Bidders shall be aware of the provision stated in sub-clause 5.4 and sub-clause 24.1 of the General Conditions of Contract.

35. Consortium   35.1   In case of Consortium of firms, the Bids shall be accompanied
    Agreement   by a certified true copy of the **Consortium Agreement**. The
                              Consortium Agreement as applicable shall confirm the following
                              therein:

   a. Date and place of signing;
   b. Purpose of Consortium (must include the details of contract
      for which the consortium has been invited to bid) ;
   c. A clear and definite description of the proposed
      administrative arrangements for the management and
      execution of the assignment;
   d. 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;
   e. An undertaking that the firms are severally liable to the
      Client for the performance of the services;
   f. Duties, responsibilities and powers of the lead firm;
   g. The authorized representative of the Consortium.

35.2 In case of 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.

35.3 Any alternative Bid, such as one by a firm in sole capacity and
     another in 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 Bid submitted by such firm and its
     Consortium or associate shall be rejected.

35.4 The Bid of a firm is liable to be rejected if the firm makes any
     false or misleading statement in Bid without prejudice to the
     rights of the Client to initiate further proceedings against the said
     firm(s).

35.5 Notwithstanding anything to the contrary contained in this Bid
     Documents, 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.

Part One - Section II.
General Conditions of Contract

Table of Clauses

General Conditions of Contract

1. Definitions   1.1   In this Contract, the following terms shall be interpreted as indicated:

(a)   "The Contract" means the agreement entered into between the SRB and the Supplier, as recorded in the Contract Form signed by the parties including all attachments and appendices thereto and all documents incorporated by reference therein.

(b)   "The Contract Price" means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations.

(c)   "The Goods" means all of the equipment, machinery, and/or other materials which the Supplier is required to supply to the SRB under the Contract, and includes the software, which is required to run and operate the equipment, machinery and other materials being supplied.

(d)   "The Services" means those services that accompany the supply of the Goods such as transportation and insurance, and any other services such as installation, commissioning, provision of technical assistance, training, that are essential for the functioning and operation of the Goods and other such obligations of the Supplier covered under the Contract.

(e)   "GCC" means the General Conditions of Contract contained in this section.

(f)   "SCC" means the Special Conditions of Contract.

(g)   "The SRB" means the Sindh Revenue Board and is organization purchasing the Goods, as named in SCC.

(h)   "The SRB's country" is Pakistan and is the country named in SCC.

(i)   "The Supplier" means the individual or firm supplying the Goods and Services under this Contract.

(j)   "The Project Site," where applicable, means the place or places named in SCC.

(k)   "Day" means calendar day.

2. Application   2.1 These General Conditions shall apply to the extent that they are not superseded by provisions of other parts of the Contract.

3. Country of Origin   3.1 All Goods and Services supplied under the Contract shall have their origin in the countries and territories eligible under the rules and further elaborated in the SCC.

3.2 For purposes of this Clause, "origin" means the place where the Goods were mined, grown, or produced, or from which the Services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.

3.3 The origin of Goods and Services is distinct from the nationality of the Supplier.

4. Technical Specification   4.1 The Goods and Services supplied under this Contract shall conform to the standards mentioned in the Technical Specifications and when no applicable standard is mentioned, to the authoritative standards appropriate to their country of origin. Such standards shall be the latest issued by the concerned institution.

5. Use of Contract Documents and Information; Inspection and Audit by the Government   5.1 The Supplier shall not, without the SRB's prior written consent, disclose the Contract or any provision thereof or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the SRB in connection therewith to any person other than a person employed by the Supplier in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.

5.2 The Supplier shall not without the SRB's prior written consent, make use of any document or information enumerated in GCC Clause 5.1 except for purposes of performing the Contract.

5.3 Any document, other than the Contract itself, enumerated in GCC Clause 5.1 shall remain the property of the SRB and shall be returned (all copies) to the SRB on completion of the Supplier's performance under the Contract if so required by the SRB.

5.4 The Supplier shall permit the SRB to inspect the Supplier's accounts and records relating to the performance of the Supplier and to have them audited by auditors appointed by the SRB, if so required.

6. Patent/ IP Rights 6.1 The Supplier confirms that it has the right to deal with and use, distribute and supply any patent, trademark, copyright or industrial design rights involved in the performance of this Contract, including for the supply of Goods and provision of Services hereunder.

6.2 The Supplier shall indemnify the SRB against all third-party claims of infringement of patent, trademark, copyright or industrial design rights arising from use of the Goods or Services or any part thereof

6.3 The Supplier confirms that the supply of the Goods includes the software (and any updates to it) required to use and operate the Goods. The Supplier confirms that it has the authority, power and right to grant a perpetual and irrevocable license to this software and that on delivery of the Goods shall be deemed to have granted a perpetual and irrevocable license to the SRB to use the software installed or to be installed on the Goods in order to use and operate the Goods.

6.4 The SRB shall retain complete intellectual property rights over any information or data that is collected during the performance of this Contract, including any information or data relating to taxpayers collected using the Goods and Services, including during the installation and commissioning of the Goods. The Supplier confirms that it shall have no right to use, transfer, distribute or otherwise take any action in relation to this information or data.

7. Performance Security 7.1 Within twenty (20) days of receipt of the notification of Contract award, the successful Bidder shall furnish to the SRB the performance security in the amount specified in SCC.

7.2 The proceeds of the performance security shall be payable to the SRB as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.

7.3 The performance security shall be denominated in the currency of the Contract acceptable to the SRB and shall be in one of the following forms:

(a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the SRB's country in the form provided in the bidding documents or another form acceptable to the SRB

(b)   a cashier's or certified check.

7.4   The performance security will be discharged by the SRB and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract including any warranty obligations unless specified otherwise in SCC.

8. Inspections and Tests

8.1   The SRB or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the SRB. SCC and the Technical Specifications shall specify what inspections and tests the SRB requires and where they are to be conducted. The SRB shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.

8.2   The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s) at point of delivery and/or at

the Goods' final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the SRB.

8.3   Should any inspected or tested Goods fail to conform to the Specifications, the SRB may reject the Goods, and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the SRB. SRB's right shall in no way be limited or waived by reason of the Goods been arrived in SRB's country, previously been inspected, tested, and passed by the SRB or its representative prior to the Goods' shipment from the country of origin.

8.4   Nothing in GCC Clause 8 shall in any way release the Supplier from any warranty or other obligations under this Contract.

9. Packing   9.1   The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

9.2   The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any specified in SCC, and in any subsequent instructions ordered by the SRB.

10. Delivery and   10.1   Delivery of the Goods and performance of the Services shall
Performance   be   made   by   the   Supplier   in accordance with the terms specified in the Schedule of Requirements.   The details of shipping and/or other documents to be furnished by the Supplier for the delivery of Goods are specified in SCC.

10.2   Documents to be submitted by the Supplier are specified in SCC.

11. Insurance   11.1 The Goods supplied under the Contract shall be delivered duty paid (DDP) under which risk is transferred to the buyer after having been delivered, hence insurance coverage is the seller's responsibility.

12. Transpor-   12.1 The Supplier is required under the Contact to transport the Goods
tation   to a specified place of destination within the SRB's country, transport to such place of destination in the SRB's country, including insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price.

13. Services   13.1 The Supplier shall be required to provide all of the following services as well as any additional services specified in SCC:

    (a)   installation and commissioning of the Goods and implementation of the software required to operate the Goods;

    (b)   performance or supervision of on-site assembly and/or start-up of the supplied Goods;

    (c)   furnishing of tools required for assembly and/or maintenance of the supplied Goods;

    (d)   furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;

    (e)   performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and

    (f)   complete training of the SRB's personnel at the Supplier's plant (if required) and on-site, in assembly, start-up, operation, maintenance and/or repair of the supplied Goods.

13.2 Prices charged by the Supplier for Services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged for other parties by the Supplier for similar services.

13.3 All Services shall be provided in accordance with the Schedule of Requirements.

14. Spare Parts   14.1   As specified in SCC, the Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

(a) such spare parts as the Procuring agency may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under the Contract; and

(b) in the event of termination of production of the spare parts:

(i) advance notification to the SRB of the pending termination, in sufficient time to permit the SRB to procure needed requirements; and

(ii) following such termination, furnishing at no cost to the SRB, the blueprints, drawings, and specifications of the spare parts, if requested.

15. Warranty

15.1 The Supplier warrants that the Goods supplied under the Contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the SRB's specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination. The Supplier further warrants to provide the SRB any training and support as listed under Clause 13 above that may be required for the proper operation and maintenance of the Goods.

15.2 This warranty shall remain valid for thirty six (36) months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the Contract, unless specified otherwise in SCC.

15.3 The SRB shall promptly notify the Supplier in writing of any claims arising under this warranty.

15.4 Upon receipt of such notice, the Supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective Goods or parts thereof, without costs to the SRB.

15.5 If the Supplier, having been notified, fails to remedy the defect(s)

within the period specified in SCC, within a reasonable period, the SRB may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the SRB may have against the Supplier under the Contract.

16. Payment

16.1 The method and conditions of payment to be made to the Supplier under this Contract shall be specified in SCC.

16.2 The Supplier's request(s) for payment shall be made to the SRB in writing accompanied by an invoice describing, as appropriate, the Goods delivered and Services performed and by documents submitted pursuant to GCC Clause 10 and upon fulfilment of other obligations stipulated in the Contract.

16.3 Payments shall be made promptly by the SRB, but in no case later than sixty (60) days after submission of an invoice or claim by the Supplier.

16.4 The currency of payment is Pak. Rupees.

17. Prices

17.1 Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in SCC or in the SRB's request for bid validity extension, as the case may be.

18. Change Orders

18.1 The SRB may at any time, by a written order given to the Supplier pursuant to GCC Clause 31 make changes within the general scope of the Contract in any one or more of the following:

(a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the SRB;

(b) the method of shipment or packing;

(c) the place of delivery; and/or

(d) the Services to be provided by the Supplier.

18.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be

made in the Contract Price or delivery schedule, or both and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the SRB's change order.

19. Contract Amendments	19.1 Subject to GCC Clause 18, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.
20. Assignment	20.1 The Supplier shall not assign, in whole or in part, its obligations to perform under this Contract, except with the SRB's prior written consent.
21. Subcontracts	21.1 The Supplier shall notify the SRB in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the Supplier from any liability or obligation under the Contract.
	21.2 Subcontracts must comply with the provisions of GCC Clause 3.
22. Delays in the Supplier's Performance	22.1 Delivery of the Goods and performance of Services shall be made by the Supplier in accordance with the time schedule prescribed by the SRB in the Schedule of Requirements.
	22.2 If at any time during performance of the Contract, the Supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the SRB in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the SRB shall evaluate the situation and may at its discretion extend the Supplier's time for performance, with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of Contract.
	22.3 Except as provided under GCC Clause 25, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 23, unless an extension of time is agreed upon pursuant to GCC Clause 22.2 without the application of liquidated damages.
23. Liquidated	23.1 Subject to GCC Clause 25, if the Supplier fails to deliver any or

Damages
all of the Goods or to perform the Services within the period(s) specified in the Contract, the SRB shall, without prejudice to its other remedies under the Contract deduct from the Contract Price as liquidated damages, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance up to a maximum deduction of the percentage specified in SCC. Once the maximum is reached, the SRB may consider termination of the Contract pursuant to GCC Clause 24.

24. Termination for Default

24.1 The SRB, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate this Contract in whole or in part:

(a) if the Supplier fails to deliver any or all of the Goods or perform any of the Services within the period(s) specified in the Contract or within any extension thereof granted by the SRB pursuant to GCC Clause 22; or

(b) if the Supplier fails to perform any other obligation(s) under the Contract.

(c) if the Supplier, in the judgment of the SRB has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this clause:

"corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution.

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

24.2 In the event the SRB terminates the Contract in whole or in part, pursuant to GCC Clause 24.1, the SRB may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the supplier

shall be liable to the SRB for any excess costs for such similar Goods or Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

25. Force Majeure   25.1 Notwithstanding the provisions of GCC Clauses 22, 23, and 24, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

25.2 For purposes of this clause, "Force Majeure" means an event beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the SRB in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

25.3 If a Force Majeure situation arises, the Supplier shall promptly notify the SRB in writing of such condition and the cause thereof. Unless otherwise directed by the SRB in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

26. Termination for Insolvency   26.1 The SRB may at any time terminate the Contract by giving written notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the SRB.

27. Termination for Convenience   27.1 The SRB, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the SRB's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

27.2 With regard to the Goods that are complete and ready for shipment and for any Services that may have been provided, within thirty (30) days after the Supplier's receipt of notice of termination, shall be accepted by the SRB at the Contract terms and prices. For the remaining Goods and Services, the SRB may elect:

       (a)   to have any portion completed and delivered at the Contract terms and prices; and/or

       (b)   to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Services and for materials and parts previously procured by the Supplier.

28. Resolution of Disputes

28.1 The SRB and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

28.2 If, after thirty (30) days from the commencement of such informal negotiations, the SRB and the Supplier have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms specified in SCC. These mechanisms include, but are not restricted to, conciliation mediated by a third party, adjudication in an agreed manner and/or arbitration.

29. Governing Language

29.1 The Contract shall be written in the language specified in SCC. Subject to GCC Clause 30, the version of the Contract written in the specified language shall govern its interpretation. All correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.

30. Applicable Law

30.1 The Contract shall be interpreted in accordance with the laws of Pakistan, unless otherwise specified in SCC.

31. Notices

31.1 Any notice given by one party to the other pursuant to this Contract shall be sent to the other party in writing or by cable, telex, or facsimile and confirmed in writing to the other party's address specified in SCC.

31.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

32. Taxes and Duties

32.1 Supplier shall be entirely responsible for all local, provincial and federal taxes, duties, levies, license fees, etc., incurred until delivery of the contracted Goods and performance of the Services to the SRB.

33. Foreign Origin Goods / Import Admissibility

33.1 The Supply of foreign origin goods shall be subject to the Import and Export Control Act 1950, provisions of the trade policy in force and the rules made thereunder; and the Sindh Public Procurement Rules 2010.

34. Term of the Contract.

34.1 The contract is initially made for three years and eight months extendable in case of satisfactory performance of the supplier and mutual agreement of both parties.

Procurement of Goods

PART TWO (PROCUREMENT SPECIFIC PROVISIONS)

- Invitation for Bids (IFB)
- Bid Data Sheet (BDS)
- Special Conditions of Contract (SCC)
- Schedule of Requirements
- Technical Specifications
- Sample Form
- Eligibility

Table of Contents - Part Two

Section II. Bid Data Sheet

Bid Data Sheet

Introduction	
Name of the Procuring Agency (ITB 1.1)	Sindh Revenue Board
Name of the Object of the Procurement (ITB 1.1)	Supply of Online Fiscal Point of Sale Integration with Tax (OFPOSIT) System with Allied Services
Name of the Contact Person and Address of SRB (ITB 6.1)	Naveed Shoukat Rajput, Procurement Specialist, 6th Floor Shaheen Complex, M.R.Kayani Road, Karachi-74200, 0092-21-99217800, Fax 0092-21-99217823 Email: naveed.rajput@srb.gos.pk
Language of the Bid (ITB 8.1)	English
Pre-Bid Conference	21st February 2018 at 1500 hours (PST)

Bid Price and Currency	
Price Schedule (ITB 11.2)	The price quoted shall be _____ Delivered Duty Paid Price (inclusive of all the taxes and incidental services) .
Fix Price (ITB 11.5)	The price shall be fixed.
Bid Currency (ITB: 12.1)	Pak Rupee

Preparation and Submission of Bids	
Qualification Requirement ITB 13.3 (d)	• Valid Registration with the chamber of commerce or any other relevant authority in the bidder's country. • Valid registration with the chamber of commerce in Pakistan and with other taxation authorities such as FBR, SRB etc. (In case of Consortium, every consortium member firm should provide). In relation to successful international bidder if any, this requirement shall have to be completed within 14 days from the date of letter of acceptance and prior to signing of the contract. • Average Annual turnover of PKR 700 Million or above for the last three financial years. • Proof of completed national/ international projects of similar nature (minimum 1 project). • ISO 9001 and 27001 certificates and CE certificate or similar
Spare Parts Required (ITB 14.3 (b))	Up to Warranty Period i.e. 36 months.
Amount of Bid Security (ITB 15.1)	5 per cent of the Bid Price
Bid Validity Period (ITB 16.1)	120 days
Number of Copies (ITB 17.1)	Three (3)
Address for Bid submission ITB 18.2 (a)	6th Floor, Shaheen Complex, M.R.Kayani Road, Karachi - Pakistan
Deadline for Bid submission (ITB 19.1)	By the 12th March 2018 up to 1500 hours (PST).
Time, Date and Place for Bid opening (ITB 22.1)	12th March 2018 at 1530 hours (PST). 6th Floor, Shaheen Complex, M.R.Kayani Road, Karachi - Pakistan

Bid Evaluation	
Criteria for Bid Evaluation (ITB 25.1)	Single Stage - Two Envelope Procedure as described in Sindh Public Procurement Rules 2010 shall be followed. (**See the Detailed Evaluation Criteria at Annex A**)
Contract Award	
SRB's Right to Vary Quantities at Time of Award (ITB 29.1)	Percentage for quantity increase or decrease. *[Should not exceed fifteen (15) percent.]*

Section III. Special Conditions of Contract

Table of Clauses

Special Conditions of Contract

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the GCC is indicated in parentheses.

1.   **Definitions (GCC Clause 1)**

GCC 1.1 (g)—:Procuring Agency is SRB

GCC 1.1 (h)—The SRB's country is Pakistan:

GCC 1.1 (i)—The Supplier is the firm/consortium supplying the Goods and Services

under this Contract

GCC 1.1 (j)—The Project Site is, initially, Karachi, Sindh Pakistan:

2.   **Country of Origin (GCC Clause 3)**

All countries and territories as indicated in Part Two Section VI of the bidding documents, "Eligibility for the Provisions of Goods, Works, and Services in Government-Financed Procurement".

3.   **Performance Security (GCC Clause 7)**

GCC 7.1—the amount of performance security, as a percentage of the Contract Price, shall be: *Ten (10) per cent of the Contract Price*

GCC 7.4—After delivery and acceptance of the OFPOSIT solution, the performance security shall be reduced to five (5) per cent of the Contract Price after one year of the signing of the Contract in order to cover Supplier's warranty obligations till the completion of the contract period in accordance with Clause GCC 15.2. Bidder shall be responsible for extension of his performance guarantee till the completion of the contract period and shall accordingly bear all expenses ancillary thereto in line with the clause GCC 7.4

4. Inspections and Tests (GCC Clause 8)

Inspection and tests prior to shipment of Goods and at final acceptance shall be conducted as per GCC clause 8.

5. Packing (GCC Clause 9)

Packing of Goods shall be as per GCC Clause 9.2:

6. Delivery and Documents (GCC Clause 10)

GCC 10.3—Upon shipment, the Supplier shall notify the SRB the full details of the shipment, including Contract number, description of Goods, quantity and usual transport document. The Supplier shall mail the following documents to the SRB:

(i)   copies of the Supplier's invoice showing Goods' description, quantity, unit price, and total amount;

(ii)   original and two copies of the usual transport document (for example, a negotiable bill of lading, a non-negotiable sea waybill, an inland waterway document, an air waybill, a railway consignment note, a road consignment note, or a multimodal transport document) which the buyer may require to take the goods;

(iii) copies of the packing list identifying contents of each package;

(iv)   insurance certificate;

(v)   Manufacturer's or Supplier's warranty certificate;

(vi)   inspection certificate, issued by the nominated inspection agency, and the Supplier's factory inspection report; and

(vii) certificate of origin.

7. Insurance (GCC Clause 11)

GCC 11.1— The Goods supplied under the Contract shall be delivered duty paid (DDP) under which risk is transferred to the buyer after having been delivered, hence insurance coverage is sellers responsibility. Since the Insurance is seller's responsibility, they shall arrange appropriate coverage.

8.   **Services (GCC Clause 13)**

GCC 13.1—Services shall be provided as per the details provided at GCC Clause 13.1

9.   **Spare Parts (GCC Clause 14)**

GCC 14.1—Additional spare parts requirements are as per the details provided at GCC clause 14.1

GCC 14.1—Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spares for the Goods. Other spare parts and components shall be supplied as promptly as possible, but in any case within six (6) months of placing the order and opening the letter of credit.

10.   **Warranty (GCC Clause 15)**

GCC 15.2—In partial modification of the provisions, the Warranty Period shall be thirty six (36) months from date of acceptance of the Goods and provision of Services. The Supplier shall in addition, comply with the performance and/or consumption guarantees specified un-der the Contract. If, for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall, at its discretion, either:

(a)   make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests in accordance with SCC 4

or

(b)   pay liquidated damages to the SRB with respect to the failure to meet the contractual guarantees. The rate of these liquidated damages shall be @given at clause 13 of special conditions of the contract.

[The rate should be higher than the adjustment rate used in the bid evaluation under ITB 25.4 (f) or (g).]

GCC 15.4 & 15.5—The period for correction of defects in the warranty period is seven (7) days.

11.   **Payment (GCC Clause 16)**

GCC 16.1—The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:

Payment for Goods and Services supplied:

(a) Payment shall be made in Pak. Rupees in the following manner:

- **Advance Payment:** Ten (10) percent of the Contract Price shall be paid within thirty (30) days of signing of the Contract, and upon submission of claim and a bank guarantee for equivalent amount valid until the Goods are delivered and in the form provided in the bidding documents or another form acceptable to the SRB.

- **On Shipment:** Twenty five (25) per cent of the Contract Price shall be paid through irrevocable confirmed letter of credit opened in favor of the Supplier upon submission of documents specified in GCC Clause 10. However, in case of delivery of the Goods locally, this component of payment shall apply upon delivery of such Goods.

- **After Commissioning**: Thirty Five (35) per cent of the Contract Price shall be paid after the installation and commissioning of the Goods;

- Twenty (20) per cent of the Contract Price shall be paid on the Final Acceptance of the Goods and Services by the SRB but not later than six (6) months after the commissioning of the Goods.

- Five (05) per cent of the Contract Price shall be paid at the end of second year of Warranty Period.

- Five (05) per cent of the Contract Price shall be paid at the end of the Warranty Period.

The above Payments shall be made in Pakistan Rupee (PKR) within thirty (30) days of presentation of claim, subject to the conditions specific to each.

12. Prices (GCC Clause 17)

GCC 17.1—Prices shall be adjusted in accordance with provisions in the Attachment to SCC.

*[To be inserted **only** if price is subject to adjustment.]*

13. Liquidated Damages (GCC Clause 23)

GCC 23.1—Applicable rate:

Maximum deduction:

[Applicable rate shall not exceed one-half (0.5) percent per week, and the maximum shall not exceed ten (10) percent of the Contract Price.]

14. Resolution of Disputes (GCC Clause 28)

GCC 28.3—The dispute resolution mechanism to be applied pursuant to GCC Clause 28.2 shall be as follows:

In the case of a dispute between the SRB and the Supplier, the dispute shall be referred to arbitration in Karachi in accordance with the laws of Pakistan under the Arbitration Act 1940.

15. Governing Language (GCC Clause 29)

GCC 29.1—The Governing Language shall be English.

16. **Applicable Law (GCC Clause 30)**

GCC 30.1-The Contract,, including the arbitration agreement, shall be interpreted in accordance with the laws of Islamic
Republic of Pakistan

17. Notices (GCC Clause 31)

GCC 31.1—SRB's address for notice purposes: 6th Floor Shaheen Complex, M.R.Kayani Road, Karachi-74200, 0092-21-99217800, Fax 0092-21-99217823

Section IV. Schedule of Requirements

Schedule of Requirements

Bidders are required to provide complete solution including installation and commissioning of the Online Fiscal Point of Sale Integrated with Tax (OFPOSIT) system, as per the Scope of Work specified/detailed at Annex B, within Eight (8) months of signing the Contract Agreement with SRB.

Section V. Technical Specifications

TECHNICAL SPECIFICATIONS

1) DEFINITIONS:

OFDC (Online Fiscal Data Controller) is a secure certified fiscal device used to communicate with CIS, signing invoice, generating QR code and sending Receipt Packages to Tax System Server over means of communication POS (Point of Sale) consists of computer, software and printer. It is used for issuing of receipts, which conforms to the requirements of the Regulation.

ECR (Electronic Cash Register) is electronic device used for issuing of receipts, which conforms to the requirements of the Regulation.

CIS (Certified Invoicing System) is common name for POS or ECR.

OFPOS (Online Fiscal Point of Sale) is a unity that consists of CIS and OFDC

TSS (Tax System Server),

RP (Receipt Package) –a package consisting of textual representation of fiscal receipt, digital signature with associated metadata

Fiscal Receipt is a digitally signed acknowledgment that a specified payment has been received.

SAM (Secure Access Module) is part of OFDC device. It is fiscal component which is used to digitally sign receipts, to store most relevant fiscal data (daily, month and year totals) and to keep private keys in secure way. It also enables safe and easy way to distribute private keys to taxpayers.

Verification URL (universal resource location) is used to verify particular invoice using service provided by Tax Authority.

EJ (Electronic Journal) - removable type of memory used to keep exact copies of unsent RPs from OFDC secure memory. Once RPs' are sent from OFDC secure memory, at the same time they have to be erased from EJ.

OTA (Over the Air) refers to various methods of remote distributing new software or configuration settings to devices without physical connection.

UID (Unique Identifier) is usually number or set of characters used to identify device or some other piece of hardware.

1) OFDC SPECIFICATION AND REQUIREMENTS:

In this section, basic requirements and specification of OFDC device are described.

1.1. OFDC General Requirements

- OFDC Device will include built-in 3G/4G communication,
- OFDC device intended for multiple POS connection, shall have internet communication with Tax Authority server,
- OFDC Device shall have possibility to Link, Capture and Store Receipt Data from existing installed Point-Of-Sale client system using Ethernet, USB or RS232 wire connection with POS in fully automatic mode,
- OFDC Device should have option to Synchronize fiscal receipts data with Main SRB Tax Integration Server in fully automatic mode, with automatic connectivity, transparent to POS operator,
- OFPOS should also have option to function as an independent online device at client outlet/premises, in situations if no existing POS is installed already,
- Device should have configurable option to link and capture Sales Invoice Data from multiple client POS equipment(s), Check-Out Lanes, Branches defined communication protocol,
- OFDC Device should have Alerts Generation Module for critical failures, communication and linkage errors encountered in connectivity, synchronizations and uploading of fiscal receipts data.
  1) OFDC has two modes of operation - online and offline mode. In online mode OFDC sends RPs to TSS and receives TSS signature which should be printed on receipt. In offline mode, OFDC stores RPs to secure memory, and receipts are printed without TSS signatures.
  2) OFDC should work in online mode.
  3) Once OFDC gets in online mode, all RPs from secure memory should immediately be sent to TSS. OFDC should keep RPs in secure memory until it receives message of successful transmission from TSS. OFDC does not have to keep RPs that are submitted and successfully stored on the TSS.
  4) OFDC will use SAM card to create local signature for receipt.
  5) OFDC should check integrity of receipt data received from CIS. In case that data doesn't correspond to expected format or some data is missing, OFDC should send error to CIS.
  6) OFDC will base on actual tax rates and receipt data received from CIS, calculate tax amounts.
  7) OFDC can receive commands from TSS. Commands will be executed in consecutive order.
  8) TSS commands are sent as part of TSS respond on RP.

9) OFDC should support several types of configuration (local using web interface or specialized application, or configuration from TSS using set of predefined commands).

Main functions of OFDC are:

Sno	Description	Built-In Features Yes/No	Need to be Customized Yes/No	New Development Required Yes/No
1	Generating of digital signature printed on CIS as a part of fiscal receipt,			
2	Generating QR code printed CIS as a part of fiscal receipt,			
3	Generating RP and sending them to TSS by means of communication,			
4	Receiving digital signature from TSS and passing it to CIS as part of fiscal receipt,			
5	Storing of all unsent RPs in secure memory.			

1.2. OFDC Hardware Specifications

This chapter specifies minimal OFDC hardware features. Specification includes internal and external ports, necessary hardware modules and features of OFDC device.

Item Name	Description
External ports	1 x Ethernet Port 1 x USB device port 1 x RS232 port 1 x SIM card port 1 x SAM Card port (2FF size) 1 x SMA female 50Ω connector for GSM antenna
Internal ports	Micro SD connector for EJ
Secure internal memory	For at least 30.000 receipt packages

Real Time Clock Pakistan Standard Time (PKT)	Battery powered RTC with at least 6 months of Autonomy
Minimum set of LED indicators	Power OFDC OK/NOK RP sent OK/ERR GSM Signal Server connection
Internal backup battery	Allowing at least 8 hours of OFDC operation without mains, charging time less than 4 hours
Power Supply	External Adapter 100-240VAC, 50Hz

Certificates	1) **CE or Equivalent Certificate** compliant with following:
	
	    a) **LVD & Safety:**
	EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013; EN 62311:2008 / 1999-519-EC
	
	    b) **EMC:**
	EN 301 489-1 v1.9.2; EN 301 489-7 v1.3.1; EN 301 489-24 v1.5.1
	
	    c) **RF Spectrum:**
	EN 301 511 v9.0.2; EN 301 908-1 v6.2.1; EN 301 908-2 v6.2.1;
	
	    d) **R&TTE:**
	R&TTE Directive 1999/5/EC, Article 10(5) and Annex IV
	
	1) **ISO 27001 or equivalent**

1.3. OFDC Schemes and Connections to the TSS

Following pictures shows most common OFPOS schemes and their connection to TSS.

Picture 1 - Integration of OFDC with ECR
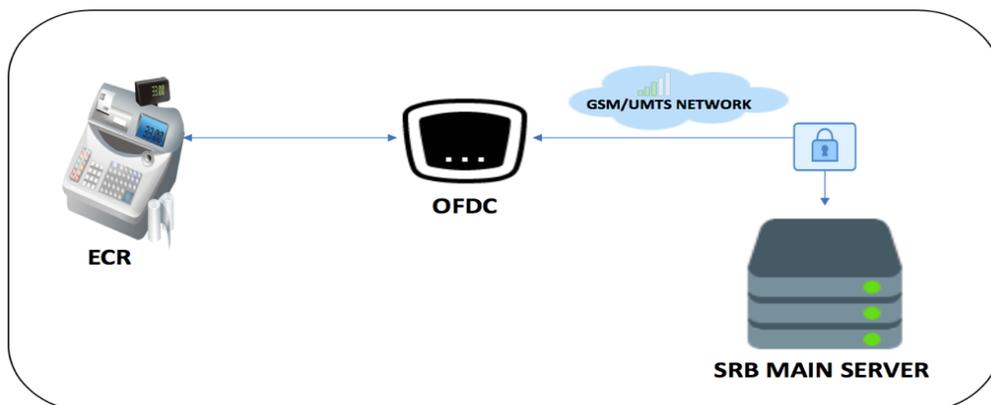
On Picture 1, ECR is used on CIS side. Communication between ECR and OFDC is performed over one of available types of connection (RS232, USB or Ethernet). Connection to TSS is made over 3G network and secure Private APN which is only allowed channel for communication with TSS when ECR is used.

Picture 2 - Integration of OFDC with POS
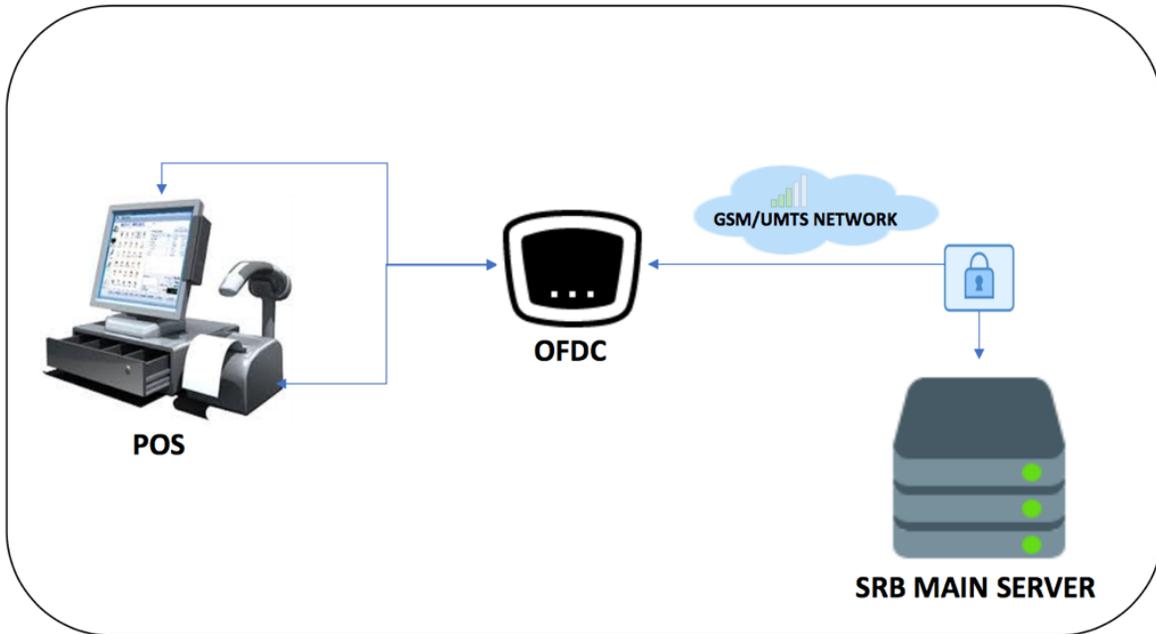
On Picture 2, POS is used on CIS side. Communication between POS computer and OFDC is performed over one of types of connection (RS232, USB or Ethernet). POS printer is directly connected to and controlled by OFDC, over one of remaining types of connection (RS232, USB or Ethernet). Connection to TSS is made over 3G network and secure Private APN which is only allowed channel for communication with TSS when POS is used.

Picture 3 – Integration of OFDC with multiple POS
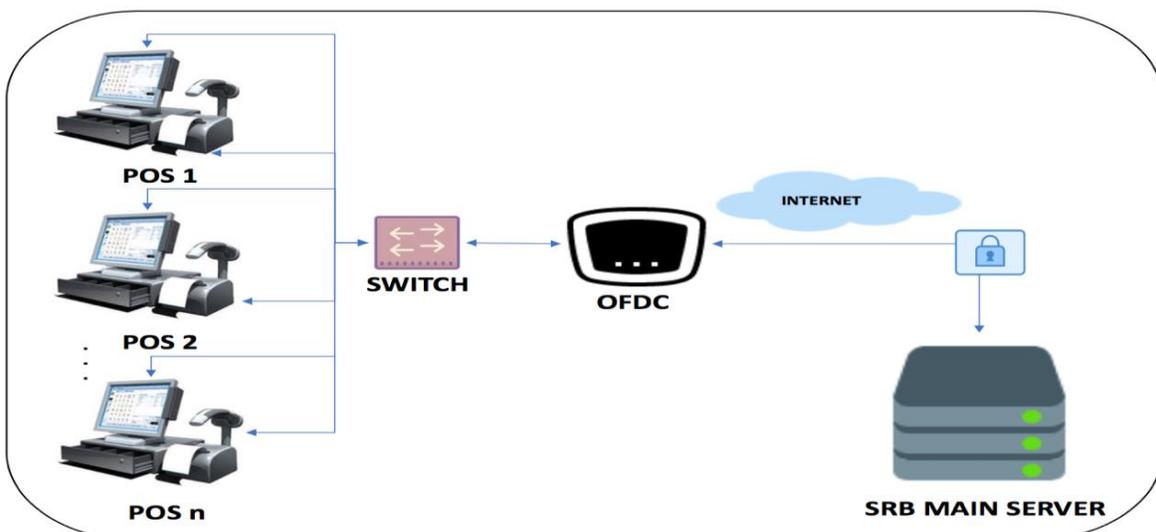
On Picture 3, multiple POS are used on CIS side. Every POS computer, over switch or

network router, has to be connected in same Ethernet network as OFDC. POS printers are also directly connected to same Ethernet network as OFDC. Connection to TSS is made over IPsec/VPN which is only allowed channel for communication with TSS when multiple POS is used.

Taxpayers will be encouraged to use online mode whenever it is possible. . However, in order for system to be robust and usable in all conditions, OFDC has to have ability to close any possible gap in fiscal discipline that may have arisen from bad network coverage or internet unavailability. That's way, for limited period, offline mode of operation is allowed.

Online Mode

In online mode of operation, OFDC is connected by allowed means of communication to TSS. As soon CIS sends receipt data, OFDC should check its integrity, calculate tax amounts and using SAM Card, generate receipt signature, verification URL and corresponding QR code. RP is made from receipt raw data, tax amounts and receipt digital signature and it is sent to TSS. OFDC expects answer from TSS. If answer is "success" in same message TSS signature is transferred to OFDC. Afterwards OFDC sends tax amounts, receipt signature, TSS signature and QR code for printing on CIS. If TSS answer is "error", corresponding to received error code, OFDC will take further actions. If there is no answer from TSS server in predefined time period or it is not possible to establish connection to TSS, OFDC will switch to offline mode of operation.

Offline Mode

Offline mode of operation is used only if online mode is temporarily unavailable. In offline mode, same as in online, as soon CIS sends receipt data, OFDC should check its integrity, calculate tax amounts and using SAM Card generate receipt signature, verification URL and corresponding QR code. RP is made from receipt raw data, tax amounts and receipt digital signature and it is stored in OFDC internal secure memory. Encrypted copy of RP is kept on EJ. Once online mode of operation is available, all unsent RPs from OFDC internal secure memory has to be sent in consecutive order to TSS and retained for 5 years in OFDC internal secure memory and EJ.

Offline mode of operation is time limited to predefined and configurable period. After that period expires, OFPOS operation will be blocked and it will not be able to generate receipts until RPs are sent to TSS. Only way of doing it is by taking OFDC to place where connection to TSS server can be established. OFDC should automatically switch to online mode and sent all data from its internal secure memory.

OFDC has to inform Taxpayer, by message shown on CIS screen, once there is less than 2 days until predefined time period for offline mode expires. After one day OFDC should generate and show on CIS screen a message that only 1 day is left before offline mode becomes unavailable.

SAM Cards

For normal operations, each OFDC will require a SAM card issued by Tax Authority. The SAM contains application which is used to apply digital signature, maintain fiscal counters and stores most important fiscal data.

Each SAM is uniquely identified by UID - Unique Identifier. Each digital certificate issued for OFDCs have UID embedded in the certificate's subject field.

SAM contains taxpayers private key used for digital signing of receipt.

SAM is designed to receive receipt data from OFDC, perform signing and data processing and generate response which is sent back to OFDC for further actions. Response provides authenticity of receipt data.

Each taxpayer is uniquely identified using digital certificates based on Public Key Infrastructure (PKI).

Fiscal data from SAM can be sent to TSS if OFDC receives "SAM read" command from TSS.

Date and Time

OFDC must have embedded RTC (Real Time Clock) module. RTC chip or similar component should be installed in order to maintain correct time while OFDC power is off. Minimum autonomy of RTC without main power supply is 6 months.

OFDC synchronizes time with NTP server. NTP server can be configured through OFDC configuration.

Sending Receipt Package to TSS

Receipt package (RP) consists of receipt journal data (textual representation of fiscal receipt) and invoice signature generated by SAM.

Each invoice has associated metadata - ordinal number. It is used to track order and make sure receipt package is submitted, preferably in consecutive order.

Once RP is generated, if connection to TSS is established, OFDC should immediately sent RP to TSS. TSS will respond with success and TSS signature, or with error containing error code in case of failure.

Format of the Receipt Package

Receipt Package (RP) consists of receipt raw data, calculated tax amounts, date and time (from OFDC RTC), SAM card UID, Taxpayer SNTN and SAM card signature. In case of working in offline mode, RP should be saved in OFDC secure memory, and in OFDC EJ memory. RP saved on OFDC EJ should be previously encrypted. Encryption of RP is done by using raw data encryption feature of SAM.

Restoring Receipt Packages When OFDC is Not Functional

If the OFDC is damaged in such a way that it cannot send RPs stored in its secured memory, RPs can be read from EJ. This is the job of the service man that will open OFDC, and before repairing or disposing it, he should remove SD card and upload RPs from SD card to TSS using special software application that will be provided by supplier/vendor.

TSS Commands

TSS commands are means of communication between the TSS server and OFDC. Commands are stacked in the queue list on the TSS for specific OFDC and submitted to the OFDC as part of the response once it reports to the TSS system for sending RPs.

There are following TSS command types:

1	Update verification URL,
2	Lock OFDC,
3	Unlock OFDC,
4	Setup maximum offline period,
5	Read SAM card fiscal data,
6	Update OFDC tax rates,
7	Remote firmware update command (OTA update)
8	TSS signature ON,
9	TSS signature OFF,
10	TSS lottery Numbers

Once OFDC receives and successfully executes command from TSS, OFDC must notify TSS about command execution. Command format and description is part of OFDC to TSS communication protocol.

1.4.   OFDC Operation Algorithms

This section describes operation performed by OFDC.

OFDC First Use

OFDC has to be initialized before first usage. Initialization is process of sending OFDC and SAM information to TSS, and getting initial OFDC configuration parameters from TSS. Once SAM is connected to OFDC and OFDC is powered on, OFDC will start initialization process if it was not performed ever before. Initialization process is started by sending SAM UID, OFDC serial number, OFDC firmware version and Taxpayer SNTN to TSS. TSS will respond by sending initialization commands to OFDC.

OFDC initialization has to be performed on location where 3G/4G connection to TSS can be established.

OFDC Normal Operation

Invoice Fiscalization

Invoice fiscalization is one of most important functions of OFDC. Following are the steps that OFDC should execute in consequent order after it receives receipt data from CIS:

	Description
	1) CIS generates a receipt data and sends a request to OFDC using serial protocol (defined in one of following chapters of this document);
	2) OFDC checks receipt data integrity;
	3) OFDC calculates tax amounts based on the current tax rates;
	4) OFDC sends required receipt data and current date and time to the SAM for fiscalization
	5) SAM signs the receipt and returns signature data to the OFDC;
	6) OFDC creates RP and sends it to TSS;
	7) TSS responds with success and TSS signature
	8) OFDC generates verification URL
	9) Using verification URL, OFDC generates QR Code;
	10) OFDC sends tax amounts, SAM signature, TSS signature and QR code to CIS (in case of POS, beside these elements, OFDC will send receipt data)
	11) If in step 6 OFDC was not able to send RP to TSS or if in step 7 OFDC doesn't get TSS respond in predefined period, OFDC will switch to offline mode and will save RP in OFDC secure memory and in OFDC EJ in encrypted form. Steps 8, 9 and 10 will follow, but without sending TSS signature to CIS. OFDC will switch from offline to online mode of operation as soon as connection to TSS is established.

Creating Verification URL

Verification URL is created from following data:

	1) TSS server verification page
	2) SAM UID number
	3) Taxpayer SNTN
	4) Date and Time obtained from OFDC RTC
	5) Receipt signature
	6) TSS signature

Creating QR Code

	1) QR code contains verification URL
	2) ECC parameter for QR code generation is H
	3) QR code is sent line by line, as byte array, where every bit describes one QR code field.

OFDC Operational Diagram
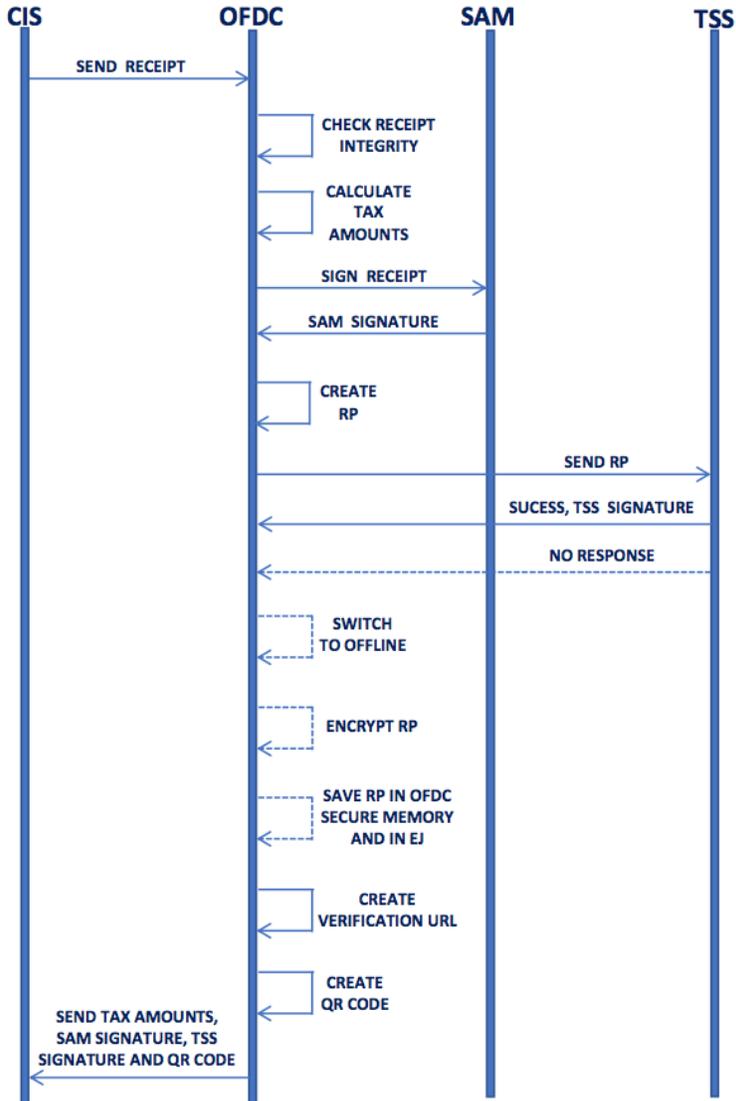
OFDC LED Notifications

LED	LED INDICATION	STATUS
Power	Green	Normal Operation, Battery Full
	Orange	Normal Operation, Battery Charging
	Red	Normal Operation, No External Power Supply
OFDC OK/NOK	Green	OFDC is working properly
	Orange	OFDC warning error
	Red	OFDC critical error
RP Sent OK/ERR	Green	Last RP send attempt successful
	Red	Last RP send attempt unsuccessful
GSM Signal	Green	GSM signal good for normal operation
	Red	GSM signal insufficient for normal operation
Server Connection	Green	OFDC connected to TSS server
	Red	OFDC connection to TSS server not established

Annexure - II

2) CIS – Certified Invoicing System

2.1. CIS Specifications

This chapter specifies minimal CIS hardware features. Specification includes internal and external ports, necessary hardware modules and features of CIS device.

POS Specifications:

Items	Description	Built-In Features Yes/No	Need to be customized Yes/No	Need to be developed Yes/No
At least one of following ports for OFDC connection	1 x Ethernet Port			
	1 x USB device port			
	1 x RS232 port			
Bar code scanner	1 x RS232 port or 1 x USB host port			
Cash drawer	1 x Cash drawer port			
Key board / key pad/	For **standard input operation**			
Displays	LCD display with backlight (at least 16x2 line for operator, 16x1 lines for customer)			
Printer	Thermal printer Print speed min 60mm/sec Paper width 56mm			
Articles database	Minimum capacity of 10.000 articles			
Forrmat prices	9+2 (999.999.999,99)			
Max value of digits in the account	11+2 (99 999 999 999,99)			

Number of departments	8			
Number of operators minimum	10			
Methods of payment	Card, check, cash			
Tax rates	Minimum 10 Sales Tax Rates			
Bar code formats	EAN-13, EAN-8, UPC			
RTC	Battery powered RTC with at least 6 months of autonomy			
Memory/Storage	Flash – 1 GB & Above; SDRAM - 1 GB & 500 GB or Above			
POS Terminal Hardware and Processor	Processor Details: 32/64 bit ARM 9 or equivalent / higher			
Optional built in battery	Minimum 8 hours of operation without mains			
Power Supply	External Adapter 100-240VAC, 50Hz			

POS Printer Specifications:

Format prices (numbers)	9+2 (999 999 999, 99)
Maximum value of digits in the account	11+2 (99 999 999 999, 99)
Thermal printer	Yes
Print speed	min 60 mm/sec
Thermal paper	Paper width 56mm
Electric power supply	Enclosed power adapter - 220V AC 50Hz
Interfaces: Connecting the OFDC	RS-232, USB, Ethernet
Port for cash drawer	Yes
Customer Display	Yes

2.2.   CIS Software Specifications

Certified Invoicing System (CIS) can be any electronic cash register (ECR) or any computer using invoicing software with printer (POS). CIS cannot operate unless connected to a functional OFDC unit assigned for the same SNTN.

A CIS shall:

Description	Built-In Features Yes/No	Need to customized Yes/No	New Deveopment Yes/No
Contain software (PC software or firmware) that controls the functions indicated in these regulations			
1. Have reprogrammable SNTN under its service mode, for the purpose of ownership transfer, only if the change of SNTN is conditioned by the reset which deletes all information saved for previously programmed SNTN;			
2. Be provided with a model name and a manufacturing number through a Machine Registration Code (MRC). MRC has a unique number by which both the CIS and the manufacturer are clearly identified.			
3. The MRC will be built as follows: i. Cash-registers: AAABBNNNNNN, where: 1. AAA = manufacturer id. (given by the Authority); 2. BB = manufacturer certificate number (given by the Authority); 3. NNNNNN = serial number (in ascending order, given by the manufacturer)			
ii. POS systems: BBBCCNNNNNN, where: 1. BBB = software developer id. (given by the Authority); 2. CC = software developer certificate number (given by the Authority);			

3. NNNNNN = serial number (in ascending order, given by the software developer)			

4. A CIS shall generate receipts, which must show, among others, the data enumerated in Items a to h of this Article as minimum required information:
  a. Taxpayer's name;
  b. SNTN;
  c. The address at which the sale takes place;
  d. Receipt type and transaction type;
  e. Registered items and/or services with description, quantity, price, with any other action that may be done such as cancellations, corrections;
  f. Means of payment ;
  g. OFDC information:
    i. Total sales amount
    ii. Tax rates applied
    iii. The sales tax added to the sale amount
    iv. OFDC identification number;
    v. Date and time stamped by OFDC;
    vi. Sequential receipt type number;
    vii. Receipt signatures (OFDC and if possible TSS signature);
    viii. QR code containing verification URL;
    ix. OFDC identification number;
  h. Machine Registration Code (MRC).			

5. Each receipt issued by CIS is formed from a combination of receipt type and transaction type			
6. Receipt types are: 1.6.1 NORMAL; 1.6.2 COPY; 1.6.3 TRAINING;			

	1.6.4 PRO FROMA. Each receipt type is attributed with one of the following transaction type: 1.6.5 SALE; 1.6.6 REFUND.			
	7. CIS shall assign a unique receipt label to each combination of receipt type and transaction, so that the OFDC can interpret them unambiguously. The table below gives the combinations of receipt labels:			

RECEIPT TYPE	TRANSACTION TYPE	RECEIPT LABEL
NORMAL	SALES	**NS**
NORMAL	REFUND	**NR**
COPY	SALES	**CS**
COPY	REFUND	**CR**
TRAINING	SALES	**TS**
TRAINING	REFUND	**TR**
PRO FORMA	SALES	**PS**

8. The data flow between the CIS and the OFDC will be as follows for each receipt type. The CIS sends the following receipt data to the OFDC at the time when the receipt is being produced:

	Date and time
	SNTN
	Machine registration code (MRC);
	Receipt type and transaction type;
	Registered items and/or services with description, quantity, price, with any other action that may be done such as cancellations, corrections;
	Cashier ID;
	Customer SNTN

	Customer name;
	Customer mobile number;
	Customer business name;
	Customer address;
	Sales Tax Withheld;
	the OFDC receives receipt data from CIS. the OFDC generates the following response data and sends them back to the CIS:
	i. Total sales amount; ii. TAX rates; iii. Total amounts with TAX; iv. TAX amounts. v. OFDC ID; vi. Date and time; vii. Receipt counter per receipt type; viii. Receipt counter of all receipts; ix. Digital signature (except for the receipt types TRAINING and PRO FORMA); x. QR code containing verification URL;
	The CIS finalizes receipt by printing OFDC information on the receipt;
	The CIS shall have display screen showing the inputs and outputs of the sale, capable of taking at least 11 digits inclusive of 2 decimal places;
	Be able to produce receipts and reports with a statement of the registrations during a day of sales and continuous use (Z daily report) and a statement of the registrations since the last Z daily report (the X daily report);
	Be issued with a version number which is a unique identifier of the software version and should be adapted for every change made to the software. CIS software version must be enabled for verification by Authority personnel; Be able to issue receipts only if connected to OFDC unit which is functioning under normal circumstances;
	Be able to independently detect whether the OFDC is operational or not, and inform user of its status in case of error;
	Not have any other functions than those stipulated in its documentation. The documentation shall accompany the CIS on delivery;
	Have inventory control, where user is able to input and/or remove goods from stock and produce independent report showing inventory status; Be able to register deposits and withdrawals

	Be able to register payment with different kinds of means of payment;
	Not to be constructed in such a way that it is possible to register a sales - amount without the simultaneously printing a receipt;
	Not be able to register amount of the transaction only without identifying the good and /or service;
	Not be able to correct or cancel transaction without clear evidence of the event printer on the receipt; Not exceed 1 (one) copy of the receipt type to print, and copy may be possible only immediately following the printing of the original receipt;
	Send receipt data to OFDC in prescribed format;
	Receive response data from OFDC and add this information to final receipt structure;

	1. Allow, as programming/servicing function, input of:
	   i. SNTN,
	   ii. MRC,
	   iii. Registered company name and address,
	   iv. Date and time,

	2. Enable to print in a uniform layout response data received from OFDC structured in with following content:
	   i. Date and time (only for POS);
	   ii. SNTN (only for POS);
	   iii. Machine registration code (MRC) (only for POS);
	   iv. Receipt type and transaction type(only for POS);
	   v. Cashier ID(only for POS);
	   vi. Customer SNTN (only for POS);
	   vii. Customer name (only for POS);
	   viii. Customer mobile number (only for POS);
	   ix. Customer business name (only for POS);
	   x. Customer address (only for POS);
	   xi. Sales Tax Withheld (only for POS);
	   xii. Registered items and/or services with description, quantity, price, with any other action that may be done such as cancellations, corrections (only for POS);
	   xiii. The designation "OFDC Information"
	   xiv. Total sales amount;
	   xv. TAX rates;
	   xvi. Total amounts with TAX;
	   xvii. TAX amounts.
	   xviii. Total Discount

		xix. OFDC identification "OFDC ID: OFDCXXXXXXXXX" xx. Time and date of OFDC (Date: dd/mm/yyyy Time: hh:mm:ss) xxi. Receipt counter "A/B RT" xxii. Receipt OFDC signature separate by dash after every 4th character xxiii. Receipt TSS signature separate by dash after every 4th character xxiv. QR code

	3.	Receipt type counter and total counter shall be presented in the following manner:
		   i. A/B RT where:
		      1. A = Counter per receipt type;
		      2. B = Total counter;
		      3. RT = receipt type label.

	4.	Continue or re-print last line in the case of power failure or after missing paper recovery.
	5.	Stand-Alone and n-Tier Installation support for POS application System (Support for separate Central Database Tier or Client-Server mode installation)
	6.	Support LAN connectivity with multiple POS clients and central database server
	7.	Built-In support for POS connected peripherals, devices and MCR interfacing
	8.	Support for Multiple User, Roles and Privilege control features
	9.	Support separate Cashier and Manager Desk operations with logins and roles
	10.	Support Setup features for Business Title, Logo, Owner IDs, Address, Registration ID, Contact Details, Location-ID, Check-Out Lane ID etc.
	11.	Support for installation with local Database or central Database connection
	12.	Support Input modes through Key-Board, Bar-Code Scanner & Touch-Screen

	13. <u>Products and Stocks Inventory Module:</u> Configurable Product Id, Image, Stock Quantity, Unit Price and Sales Tax rates
	14. <u>Promotion Deals, Discounts Setup Module:</u>
	15. <u>Customer Management Module</u>
	16. <u>Cash Book and Card Payment Reconciliation Module</u>
	17. <u>Orders Management Module:</u> Support Tablet/Mobile based Order Entries using RDP protocol (Configurable connectivity for Remote Desktop Protocol (RDP) Client)
	18. <u>Sales Invoice Generation and Printing Module:</u> All Sales Invoices will include unique Invoice-ID, Location-ID, Station-ID, Date and Time of its generation
	19. <u>Reversal Entries and Book Adjustment Module</u>
	20. <u>Business Management Reports, MIS, Search, Tracking Module</u> Various report printout support, including daily summary (Z) report, periodical report etc., and capable of querying and printing of gross profit report for about 3 years.
	21. <u>Cash Desk Operations functionalities:</u> Support end-to-end modern requirements of cash-desk operator for Product/Services listing, searching, inputs or selection, Deals/Discounts applicable, Bill hold/lock functions, customer detail, card-swap detail, Sales Invoices generation and printing etc.
	22. <u>Web Ordering Portal Integration Module:</u> Built-In Services for Portal authentication, Respond to Product Enquiries, Receive Sales Order and Issuing Sales Invoices on request of Online e-Commerce Website etc.
	23. <u>Accounting Integration Services Module:</u> Direct-Posting of Sales Invoice entries in Back-End Accounting System as per configured Database connection and login
	24. <u>Data Export Module:</u> for Reports Data in Excel/CSV File
	25. <u>Full Database and Application System backup and Restoration Module:</u> Support from offline media, SD Card etc.

26.	Software Auto-Update Module: Support software auto-update function from vendor Internet Website and release of patches/fixes
27.	All modern features and Cash-Desk/Management functionalities: Configurable Menus, Action-Key Macros, Product Image touch-pad selection etc should be the built-in features of Application Software.

2.3. CIS Reports

CIS shall have facility to generate detailed X daily report of the day's sale during which financial transactions were conducted since the previous Z daily report was generated. Daily X reports produced by CIS represent a summary of all registrations since the end of the previous Z daily report and it shall at least contain information on:

	Description
	Business name and Sales Tax Number;
	date and time;
	information showing this is an X daily report;
	CIS designation and MRC
	total sales amount for all sales receipts labeled as NS, including tax;
	total sales amount for all sales receipts labeled as NS, including tax, for the different main groups if main groups are used;
	number of sales receipts labeled as NS;
	total refund amount for all refund receipts labeled as NR, including tax;
	number of refund receipts labeled as NR;
	taxable amounts per applicable tax rates divided between sales (NS) and refunds (NR); tax amounts per applicable tax rates divided between sales (NS) and refunds (NR);
	opening deposit;
	number of items sold
	number of receipt copies labeled as CS or CR and amount with tax included;
	number of receipts in training mode labeled as TS or TR and amount with tax included;

	number of advance receipts in proforma mode labeled as PS and amount with tax included;
	sales total divided according to means of payment for sales (NS) and refund (NR) receipts
	all discounts;
	other registrations that have reduced the day's sales and their amount;
	Number of incomplete sales

Electronic Billing Machine shall have facility to generate detailed Z daily report at the end of each day during which financial transactions were conducted and certified receipts generated. This report will be regarded as a business and accounting record.

Daily Z report produced by CIS represent a summary of all registrations suitable for account of a day's sale and shall at least contain information on:

	Business name and tax identification number;
	date and time;
	information showing this is an Z daily report;
	CIS designation and MRC;
	total sales amount for all sales receipts labeled as NS, including tax;
	total sales amount for all sales receipts labeled as NS, including tax, for the different main groups if main groups are used;
	number of sales receipts labeled as NS;
	total refund amount for all refund receipts labeled as NR, including tax;
	number of refund receipts labeled as NR;
	taxable amounts per applicable tax rates divided between sales (NS) and refunds (NR);

	tax amounts per applicable tax rates divided between sales (NS) and refunds (NR);
	opening deposit;
	number of items sold;
	number of receipt copies labeled as CS or CR and amount with tax included;
	number of receipts in training mode labeled as TS or TR and amount with tax included;
	number of advance receipts in proforma mode labeled as PS and amount with tax included;
	sales total divided according to means of payment for sales (NS) and refund (NR) receipts;
	all discounts;
	other registrations that have reduced the day's sales and their amount;
	Number of incomplete sales

When no report or only one of the above mentioned reports has been generated, the next report shall contain all the data for the entire period (from the time of the previous Z daily report to the time of the new report).

Price Lookup (PLU) report contains full details of each item, the quantities sold and the amounts collected for each item and category since the previous PLU report was generated.

PLU report shall at least contain information on:

  i.   company name and SNTN;
 ii.   date and time;
iii.   information showing this is an PLU report;
 iv.   CIS designation;
  v.   PLU number, item code, item name, unit price, tax rate, quantity on stock.

2.4. Receipt Specification

- CIS shall not be able to issue receipt if the CIS did not receive any response from the OFDC.

- When a CIS provides a function for printing copies of the receipt, printing training or pro forma tickets, they must be clearly distinguishable from the NORMAL receipt type. The designation COPY, TRAINING, PRO FORMA has to be placed on the invoice

bellow receipt header and above item description section. Moreover, in such cases the following text bellow of amount totals of the ticket has to be printed: "THIS IS NOT AN OFFICIAL RECEIPT". It shall not be possible to alter the receipt identifying text, which shall be at least twice as big as the text that indicates the amount.

- All corrections on the receipt of any type must clearly distinguishing negative amounts from positive amounts by using a minus sign.

Normal Sale defined by receipt label as NS, refers to a receipt that shall be produced and offered to the client. It is understood to be any receipt produced while the Electronic Billing Machine is in its normal registration mode, used to register sales of goods and/or services, including corrections and discounts registered by means of the correction and discount functionalities.

Normal Refund defined by receipt label as NR refers to a receipt that shall be produced, while Electronic Billing Machine is in refund mode for a client upon request with information indicating that a previously printed Normal Sale receipt contains incorrect information or information on a refund for returned or discounted goods or services. Such refund receipt contains only negative, refunded amounts. Each receipt of this type requires a statement by user inputted to a special refund log book containing receipt details and justification with description and the name of the refund recipient.

Copy defined by receipt label as CS or CR, refers to a copy of only previously generated receipt of any NORMAL receipt type

Training defined by receipt label as TS or TR refers to a printout purely for practice purposes on Electronic Billing Machine and shall be produced only when it is in its training mode, with information similar to that which is to be indicated on a NORMAL receipt type.

Pro forma or an *advance receipt*, defined by receipt label only as PS refers to a printout from an Electronic Billing Machine while in pro forma mode, with information similar to that contained on a NORMAL receipt type.

2.5. Receipt Example

Following is example of receipt type NORMAL and transaction type SALE (NS):

```
                Trade Name
                Address, City
              SNTN: 000000000
-------------------------------------------------
              Welcome to our shop
-------------------------------------------------
Plain Bread

xxxxxx          xxxxx          xxxxx

butter

xxxxx          xxxxxx          xxxxx

discount -xx%
xxxxx

wings
xxx              xxx              xxxx
-------------------------------------------------
              OFDC INFORMATION
-------------------------------------------------
 TOTAL                          xxxxxx
TOTAL A                         xxxxxx
TOTAL B                        xxxxxxx
 TOTAL TAX B                    xxxxxx
 TOTAL TAX                      xxxxxx
-------------------------------------------------
                  CASH
                 xxxxxx
              ITEMS NUMBER
-------------------------------------------------
 Date: 12/09/2017          Time:
              11:07:35
            OFDDC ID:
          OFDC001000001
              MRC:
           AAACC123456
RECEIPT NUMBER:            168/258
                NS
          OFDC Signature:
TE68-SLA2-34J5-EAV3-N569-88LJ-
                Q7
          TSS Signature:
        V249-J39C-FJ48-HE2W
-------------------------------------------------
```



```
-------------------------------------------------

                THANK YOU

            COME BACK AGAIN
```

TAXPAYER'S NAME
Shop address
Taxpayer Identification number (SNTN)
Commercial message
Item description, unit price, quantity, total price and tax designation

Total price to be paid
Total TAX exempted amount
Total amount with TAX per tax rate
Total amount of TAX per tax rate
Total amount of TAX
Payment method
Number of items sold
Date and time originated from OFDC
OFDC serial number
CIS MRC
Receipt number originated from OFDC
OFDC signature (separate by dash)
TSS signature (separate by dash)
QR code containing verification URL
Sindh logo
Commercial message

2.6.QR Code

1. QR code contains verification URL
2. ECC parameter for QR code generation is H
3. QR code is sent line by line, as byte array, where every bit describes one QR code field.

2.7.CIS to OFDC Protocol

Every transaction on CIS is registered, calculated and signed by OFDC. CIS just prepare receipt, send data to OFDC, receive results from OFDC and then print received data to complete and issue receipt. OFDC is a multichannel device and is capable to communicate with multiple CIS devices simultaneously.
CIS is physically connected to OFDC using one of various types of connection interfaces OFDC supports:
1. Serial (RS232),
2. Universal serial bus (USB),
3. Ethernet.
Type of protocol is Master (Host) / Slave. CIS is a master (host) while OFDC is a slave. OFDC receives command messages sent by the host and returns answer messages as a result. CIS must wait for reply before sending another message.
Beside of protocol command answer, there are two bytes send by OFDC independently of protocol:
21(15h) not acknowledge byte signalizing error in command format or checksum
22 (16h) synchronization byte sent every 500ms if preparing answer for received command requires long execution time.

Messages have specific format which differs for ingoing and outgoing.

Command messages format from CIS to OFDC <01> <LEN> <SEQ> <CMD> <DATA> <05> <BCC> <03>	
<01>	Preamble Length: 1 byte; value: 01;
<LEN>	Number of bytes from <01> (excluded) to <05> (included) plus a fixed offset 20h Length: 1 byte;
<SEQ>	Frame serial number Length: 1 byte; value: 20h - 7Fh; The OFDC sends the same <SEQ> in the reply message. If the OFDC receives a message, including the same <SEQ>, as the last received one, it must do nothing but repeat the last sent reply message.
<CMD>	Command code Length: 1 byte; value: 20h - 7Fh The OFDC must send the same <CMD> in the reply message. In case of receiving a code of a non-existing command, the OFDC must send in reply a packed

	message with a zero length data field and set the corresponding status bytes.
<DATA>	Data Bytes value: 20h - 7Fh The data field format and length depend on the command. If a command includes no data the data field length is 0. If a syntax error is found in the data field, the corresponding status bytes must be set and a packed message with a zero data field must be send as a reply.
<05>	Post amble Length: 1 byte; value: 05h;
<BCC>	Check sum (0000h-FFFFh) Length: 4 bytes; value: 30h - 3Fh The check sum is formed by the bytes from <01> (excluded) to <05> (included), by summing (adding) the values of the bytes. Each digit is sent as an ASCII code.
<03>	Terminator Length: 1 byte; value: 03h;

Answer messages from OFDC to CIS <01><LEN><SEQ><CMD><DATA><04><STATUS><05><BCC><03>	
<01>	Preamble Length: 1 byte; value: 01;
<LEN>	Number of bytes from <01> (excluded) to <05> (included) plus a fixed offset 20h Length: 1 byte;
<SEQ>	Frame serial number Length: 1 byte; value: 20h - 7Fh; The OFDC sends the same <SEQ> in the reply message. If the OFDC receives a message, including the same <SEQ>, as the last received one, it must do nothing but repeat the last sent reply message.
<CMD>	Command code Length: 1 byte; value: 20h - 7Fh The OFDC must send the same <CMD> in the reply message. In case of receiving a code of a non-existing command, the OFDC must send in reply a packed message with a zero length data field and set the corresponding status bytes.
<DATA>	Data Bytes value: 20h - 7Fh The data field format and length depend on the command. If a command includes no data the data field length is 0. If a syntax error is found in the data field, the corresponding status bytes must be set and a packed message with a zero data field must be send as a reply.
<04>	Delimiter Length: 1 byte; value: 04h;
<STATUS>	OFDC status bytes described below Length: 6 bytes
<05>	Post amble Length: 1 byte; value: 05h;
<BCC>	Check sum (0000h-FFFFh) Length: 4 bytes; value: 30h - 3Fh The check sum is formed by the bytes from <01> (excluded) to <05> (included), by summing (adding) the values of the bytes. Each digit is sent as an

	ASCII code.
<03>	Terminator Length: 1 byte; value: 03h;

OFDC status bytes:

<Byte 0>	<Byte 1>	<Byte 2>	<Byte 3><Byte 4><Byte 5>
Error code	Warning code	Receipt status	Hardware specific

Error codes (values in hex):
00 – no error;
11 – internal memory full;
12 – internal data corrupted;
13 – internal memory error;
16 - secure smart card error;
30 – wrong command code;
31 – wrong data format in the CIS request data;
32 – wrong SNTN in the CIS request data;
33 – wrong tax rate in the CIS request data;
34 – invalid receipt number int the CIS request data;
40 – OFDC not activated;
41 – OFDC already activated;
42 – OFDC blocked;
61 – receipt is not opened;
62 – receipt already opened;
63 – receipt payment error;
64 – receipt already paid;
67 – receipt server signing error;
68 – free text is opened;
99 – hardware intervention is necessary.
Warning codes:
00 – no warning;
01 – OFDC internal memory is near to full (it is at more than 90% of capacity);
02 – OFDC internal memory is near to full (it is at more than 95% of capacity).
Receipt status:
Bit 0 – receipt opened;
Bit 1 – payment finished;
Bit 2 – internal signature prepared;
Bit 3 – server signature prepared;
Bit 4 – QR code prepared;
Bit 5 – 0;
Bit 6 – 0;
Bit 7 – 0;

Hardware specific
Contain codes specific for hardware connected to OFDC (thermal printer, etc.)

Protocol commands

160 (A0h) RECEIPT OPEN	
Description:	Open new receipt
Data field:	<MRC>,<SNTN>,<RNumber>,<RcptItems>,<RType>,<TType>, <CashierID><Tax Rate>
Response:	<TypeNumber>, <TotalNumber>
Parameters:	
MRC	CIS machine registration code
SNTN	Tax registration number of the taxpayer
RNumber	CIS receipt number
RcptItems	Total number of items on receipt
RType	Receipt type: N - normal; C - copy; T - training; P - proforma
TType	Transaction type: S – sale; R – refund
TypeNumber	Receipt number per receipt type
TotalNumber	Total receipt number
CashierID	ID number of cashier
Tax Rate	Percentage tax rate

162 (A2h) CUSTOMER DATA	
Description:	Send customer data to OFDC. Used if it is required to print customer data on receipt.
Data field:	<MRC>,<"Text">,<DataType>
Response:	<CharsNum>
Parameters:	
MRC	CIS machine registration code
Text	Text is enclosed with "". If Text contains " character, it is escaped with \ character.
DataType	Letter describing data: S - customer SNTN N - customer name M - customer mobile number B - customer business name A - customer address
CharsNum	Number of accepted characters.

165 (A5h) ITEM DATA	
Description:	Send data of one item in receipt. Command is sent for every item in receipt.
Data field:	<MRC>,<ItemNumber>,<ItemName>,<ItemPrice>,<ItemQuantity> ,<ItemTaxRate>
Response:	<RcptItems>
Parameters:	
MRC	CIS machine registration code
ItemNumber	Order item number in receipt.
ItemName	Full item description.
ItemPrice	Item price

ItemQuantity	Item quantity
ItemTaxRate	Item tax rate
RcptItems	Current number of items in receipt

183 (B7h) RECEIPT CALC	
Description:	Calculate current subtotal of receipt.
Data field:	<MRC>
Response:	<SNumber>,<TaxRate1>,<Tax1>,<TaxAmount1>,…<TaxRateN>, <TaxN>,<TaxAmountN>,<TotalTax>,< TotalAmount >
Parameters:	
MRC	CIS machine registration code
SNumber	OFDC serial number as a string
TaxRate1…N	Tax rates (%)
Tax1…N	Calculated taxes
TaxAmount1…N	Receipt amount corresponding to each tax
TotalTax	Total
TotalAmount	Total receipt amount

185 (B9h) RECEIPT PAYMENT	
Description:	Do receipt payment. This command finishes receipt, initiate calculating checksums.
Data field:	<MRC>,<CashAmount>,<CardAmount>,<CheckAmount>
Response:	<Change>,<Date>,<Time>
Parameters:	
MRC	CIS machine registration code
CashAmount	Payment amount by cash
CardAmount	Payment amount by card
CheckAmount	Payment amount by check
Change	Amount of change
Date	Date of accepting the receipt by the OFDC: DD/MM/YYYY
Time	Time of accepting the receipt by the OFDC: HH:MM:SS

190 (BEh) SIGNATURE REQUEST	
Description:	Read receipt signatures made after RECEIPT PAYMENT and usually called 3 times after it to read signatures.
Data field:	<MRC>,<Type>
Response:	<Signature>
Parameters:	
MRC	CIS machine registration code
Type	I – Internal Signature S – Server Signature Q – QR code
Signature	OFDC signature, sent as a string for I and S types and for Q it is a QR code data (first byte is QR code size and following are QR code data; order of data is row by row and unused bits in last byte of every row is padded with zeroes; every bit in data is one QR

	code field; dark field is 0 and light is 1; data in byte filled from bit 7 to bit 0)

202(CAh) RECEIPT CANCEL	
Description:	Cancel receipt. Works only before issuing RECEIPT PAYMENT command. All previously sent items are deleted and receipt is closed. Receipt counter is not incremented.
Data field:	<MRC>
Response:	< TotalNumber >
Parameters:	
MRC	CIS machine registration code
TotalNumber	Total receipt number

204 (CCh) RECEIPT STATUS	
Description:	Return OFDC status. Can be used to check current OFDC status and to read OFDC date and time for synchronization.
Data field:	<MRC>
Response:	<SNumber>,<TotalNumber>,<RcptItems>,<CashAmount>,<CardAmount>,<CheckAmount>,<Date>,<Time>
Parameters:	
MRC	CIS machine registration code
SNumber	OFDC serial number as a string
TotalNumber	Total receipt number
RcptItems	Number of items in receipt
CashAmount	Paid amount by cash
CardAmount	Paid amount by card
CheckAmount	Paid amount by check
Date	Current OFDC Date: DD/MM/YYYY
Time	Current OFDC Time: HH:MM:SS

207 (CFh) RECEIPT CLOSE	
Description:	Close receipt.
Data field:	<MRC>
Response:	< TotalNumber>
Parameters:	
MRC	CIS machine registration code
TotalNumber	Total receipt number

213 (D5h) PRINT FREE TEXT	
Description:	Prints free text to printer connected to OFDC.
Data field:	<MRC>,< "FreeText">,< LastLine>
Response:	< CharsInLine>
Parameters:	
MRC	CIS machine registration code

FreeText	FreeText is enclosed with "". If FreeText contains " character, it is escaped with \ character.
LastLine	0 – any line except last line(add cureent line to buffer); 1 – last line (add line to buffer and initiate print)
CharsInLine	Number of accepted characters in line.

3) Annexure-I **TSS SPECIFICATION AND REQUIREMENTS:**

HARDWARE SPECS:

Description
64-Bit Server Machine
Xeon E7-8870 (2.40GHz/10c)/6.4GT/30ML3 x 8 or Higher
128 GB RAM or Higher
1066 MHz FSB or Higher
4U Form Factor
64MB L2 Cache Per Processor or Higher
8 x 600 GB 10K SAS HDD Hot Swappable/Pluggable or Above
1 GB RAID Controller with Level 10 Support
2 X Dual Port 4 GB/Sec FC Card
4 x Gigabit Ethernet Cards (should support teaming for failover and load-balancing)
DVD/CDRW (DVD RW+- Preferred),
Hot-Swap Redundant Power Supply
Standard Server Management Software
Required cables, connectors and accessories

Server n-Tier Deployment (Primary with Backup)

Role	Qty.
Communication Application Server Machine	2
Database Server Machine	2
Application Server for Tax Administration	1
System Development Server	1
System Testing/UAT Environment	1

Annexure-IV

TSS Software Specifications

The purpose of the Tax System Server is to collect the sales invoice data from Online Fiscal Point of Sales (OFPOS). This section describes the requirements for solution of Central Tax Integration System for Sindh Revenue Board (SRB). It collects the fiscal data from OFPOS devices and stores it on central repository internally in the system. From there, it is possible to obtain different reports and Business Intelligent (BI) tools which assist SRB tax authorities to increase the sales tax revenue and to prevent tax evasion.

This section also outlines the components and modules within the TSS server that collaborates with external components (like OFDC device) and internal ones to fulfill the functional requirements for the TSS server at SRB. It also explains how some of the nonfunctional requirements are achieved in this solution like. The main ones are:

- High availability

- Backup system server with automatic failover

- Security within the system.

Here is a short architecture description provided together with a list of system users.

3.1.   TSS System Architecture

Picture 4 – Layer View
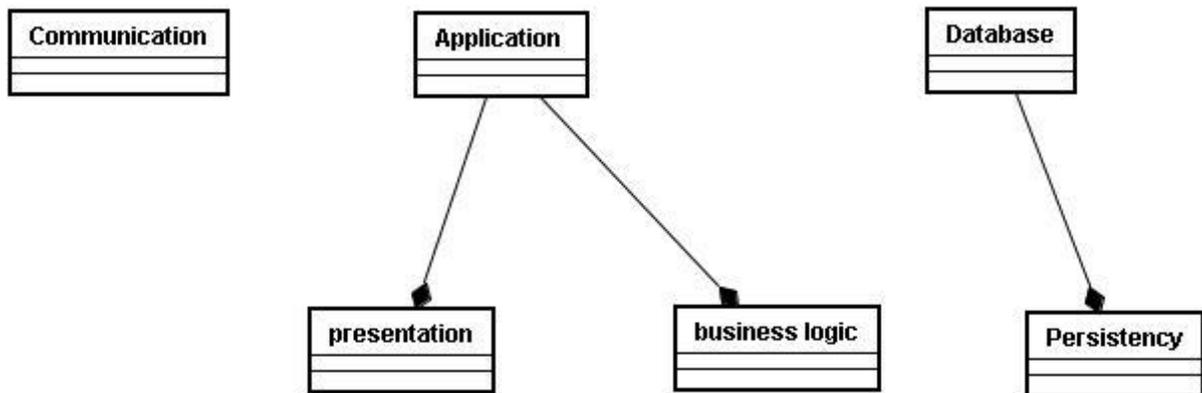
The system shall be designed to place components, its modules and services on one of the 4 main layers: presentation, communication, and business logic and persistency layer.

Communication layer encapsulates components and modules that communicate with external systems like OFDC device. This is an important part of the TSS server as it implements mission critical, online service which serve thousands OFDC devices at point of sales.

The system consists of managed components. It means it should support start, stop, restart and easy upgrade functionality. There should be a clean distinction in responsibility of managed components, well designed exposed interfaces and its behavior. For example, in application layer, component can be implemented as stand-alone ones or as packages running under one of the industry standardized application servers.

Presentation and business logic layers should be encapsulated by one of the application tiers called middle or application tier. It contains main business logic components and User Interface.

Persistency layer shall contain components that stored the data like RDBMS database and network file systems

The architecture of the Main Tax Service should follow the MVC software architectural pattern. It means that for the system and its components implementation, it is recommended to use technology which supports Model –View-Controller design pattern like .net, php or java.

Here is a component view:

Picture 5 – Main Component View
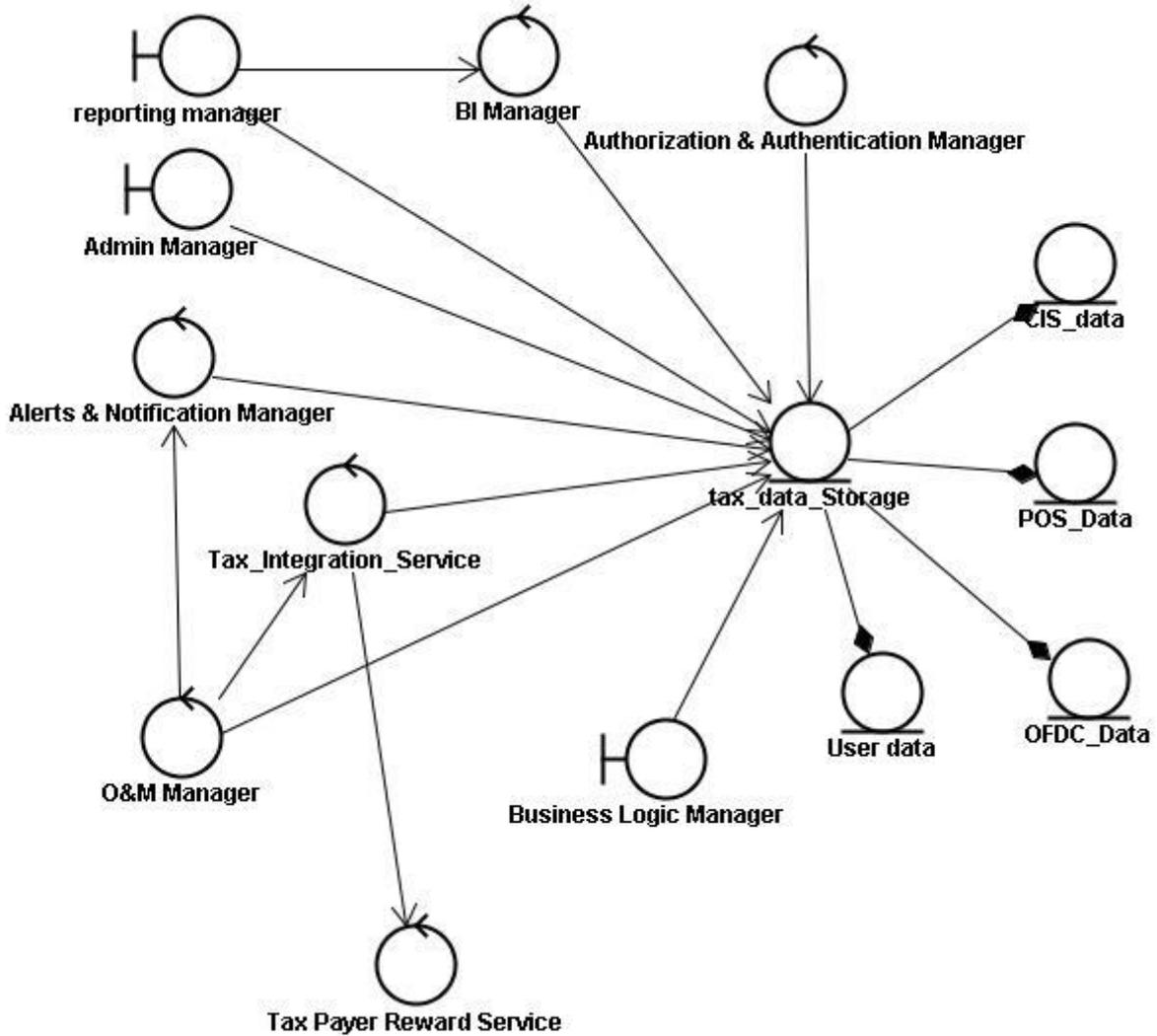
Central system functionality components are:

Description	Built-In Features	Need to be customized	New development
	Yes/No	Yes/No	Yes/No

1	Tax data storage - Represents a RDBMS database which encapsulates the minimum data like: - Sales invoice data, - POS data, - CIS & OFDC data, - Users' data.			
2	Tax integration service - Communicates with OFDC devices and it is a main service for collection of sales invoice data.			
3	Business Logic manager - Provides the provisional interface for POS, OFDC and CIS data. It also implements the OFDC and POS management functionality like: - OFDC registration/de-registration - Binding POS to OFDC device - Activation/De-activation of the OFDC device			
4	O&M manager - Contains the system status dashboard for system, online web service status, client connection monitoring. It contains the list of alerts that are currently created and present in the tax system.			
5	Administration Manager - it exposes the GUI interface for system configuration. This User Interface can be accessed only by system administrators.			
6	Reporting Manager – provides the reporting functionality in the tax system.			
7	Business Intelligence manager - This component is closely coupled with reporting manager. It provides the possibility to create and run BI scripts.			
8	AA Manager - component responsible for authorization and authentication of the system users. Implement the user profiles management			
9	Taxpayer reward system – provides lottery tickets that are printed on the sales receipt			
10	Registration & De-Registration Forms for Client POS Unit: Provide Registration/De-Registration Forms, for new Point-Of-Sales (POS) Station with unique ID, complete business registration details, login-id			

	and security key management			
11	System Operations Dashboard:Dashboard for current System Activities, Events, Logs, Status Summaries with Drill-Down detail level listings of each indicator and item			
12	Client connection session management			

3.2. TSS Use Cases

The users of the tax servers are:

• **Operator** – This type of user are responsible for system maintenance and operation. They are also responsible for POS, OFDC and CIS data management
• **Administrator** – Responsible for system configuration. One of the administrators' tasks is to manage user profiles and user access to the tax system. It sets the communication parameters with different internal or external components of the tax system in SRB. Administrator is also responsible for making data backups.
• **Tax officers** - responsible for report generation, BI scripts management and tax data analysis.

Main use cases are:

1) **Invoice data traffic UC**. This Use case is the main one. OFPOS send the fiscal data to the tax server. Tax server stores the sales invoice data on the common data repository and returns the data back to the OFPOS which prints the slip.
2) **O&M system use cases.** This use case encapsulates the list of activities of operation and maintenance of the system done by system operator; It collects the system alerts, system status information and recommends the proper action or activities.
3) **Data provisioning.** Different data needs to be provided to the tax service in order to properly function. The main provision data are OFPOS and point of sales data. Thus, system needs to provide an external interface for data provisioning purposes.
4) **System administration.** Configuration of the tax system
5) **Reporting and BI management.** Responsibilities of tax officers at SRB, who need to collect data from the system, analyze them with help of BI and reporting modules.

Picture 6 – Main Use Cases
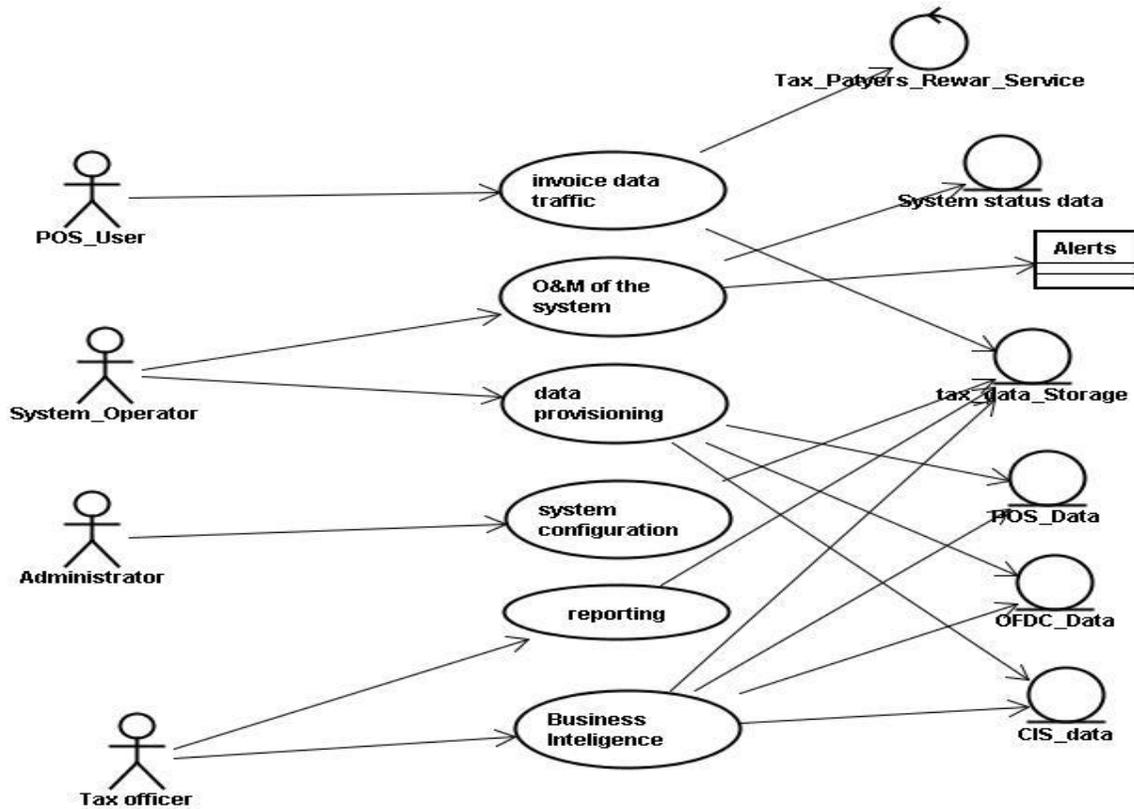
4.3.   TSS Components and Functionalities

The TSS Service shall consist of components and modules with clear defined responsibility and functionality. They should collaborate with each other exposing the interface with defined communication protocols. Thus, the central tax service has to be compliant with Service Oriented Architecture (SOA).
Some of the components expose Graphical User Interface (GUI). All these interfaces have to be browser based especially for following system users:
•   System administrators
•   System operators
•   Tax officers
Some of the component exposes external or internal interfaces. It is recommended that all external interfaces are realized as web services. However, if component is involved in on-line traffic use cases, it is recommended that it exposes external interface at tcp/ip level. Also, for the components that are involved in on-line traffic, it is recommended to be closely coupled with each other - to be able to exchange the messages as fast as possible in a way that is recommended by technology used for implementation.

Security:

User sessions that are browser based have to communicate via https secured protocol. All external interfaces have to follow secure version of the protocol. For example, if the interface is RESTful, the https protocol has to be used. If the interface is soap based. It has to contain wss header.

4.3.1. Authorization & Authentication manager

In the Authorization and Authentication module, users are registered with their profiles. The initial list of user profiles is pre-defined. Each user profile is defined by the application domain access. The application domain specifies a group of application functionalities similar in their nature. The user profiles are managed via Administration domain. They can be created/updated/deleted.

A scenario for creation of users shall be:

1)	A New user creates a request for registration,
2)	The request is visible to the system administrator which approves the request. Once the request is approved, the e-mail notification is sent the users email account previously entered in the system,
3)	In the email, there is a welcome message and link to the user account activation,
4)	User runs the link which opens the web browser on Tax server welcome page. The link contains the secret key as a parameter which helps to narrow the previously entered user account.
5)	User enters the new password, confirms it and user account is ready to be used. One of the user properties is the user profile specified by user and approved by administrator.

Like all other tax server components, A&A Manager has to provide the rich and easy to trace logs. All history records with user log-in, session, connection details, timestamps and user actions has to be logged and maintained.

For each user accessing the service using web browser, the new user session is created in A&A Manager. This is used to log and trace the user activity. The user session lifecycle can be:

- Open
- In use
- Closed.

Session is closed by user itself (by pressing logout control) or automatically after not being used (no recorded user activity) for predefined time period.

All user activities are recorded and logged with user session ID information.

4.3.2. Tax Integration Service

The tax integration service module is part of the Tax server. This is a mission critical part of the service as it has to:

	Serve and accept all requests coming from OFDC devices. The minimal number of the OFDC devices that needs to be served are couple of thousands
	To respond in real time (couple of seconds) to each request coming from OFDC device. The response has to reflect the result of the operation that needs to be done by sending the appropriate response code
	To server 24/7 which means, it has to utilize high availability in the infrastructure. It has to: ▪ Minimize potential downtime ▪ To eliminate 'single point of failure' ▪ Has to be scalable This module has to be pluggable in the Tax Service component. With a new release, it has to be possible to deploy and restart the service via web application

The typical data interchange scenario between tax integration service and OFDC device the tax integration service module listens for new data coming from ECDS devices. The service is running on IP address and port which are part of the service configuration. Each device connects with service using tcp/ip connection. Once the connection is established, it lasts until all request/response message interchange is finished. Here is an example: This example illustrates the request response flow when sales invoice data is uploaded on the Tax service via tax integration service module.
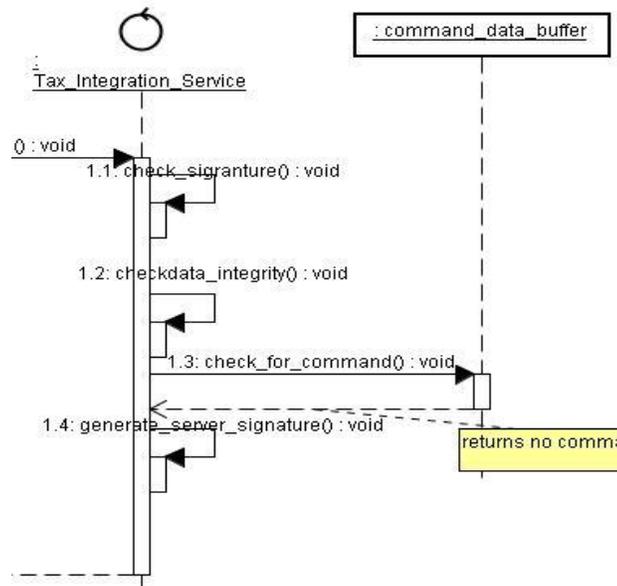
Sequence diagram, data interchange, no command waiting for OFDC

Server accepts requests from OFDC devices. The service is in standby wait for requests state.

i.	Client sends the request which is accepted by service. Service checks if the request is signed by checking the signature
ii.	if signature check is passed, service checks if the message is not corrupted
iii.	if that check is passed, the sales data extracted from request is sent to queue buffer for the sales data processing
iv.	after that, service queries for OFDC device command provision
v.	if no command is registered, it replies with:
	1. result code (in this case, success)
	2. server signature which will be printed on slip

Second example illustrates multiple request/response interchange between OFDC device (client) and tax integration service (server). The typical use case for this type of communication is when client sends sales invoice transaction data to the server but it needs to run command which is provisioned by server to the client.
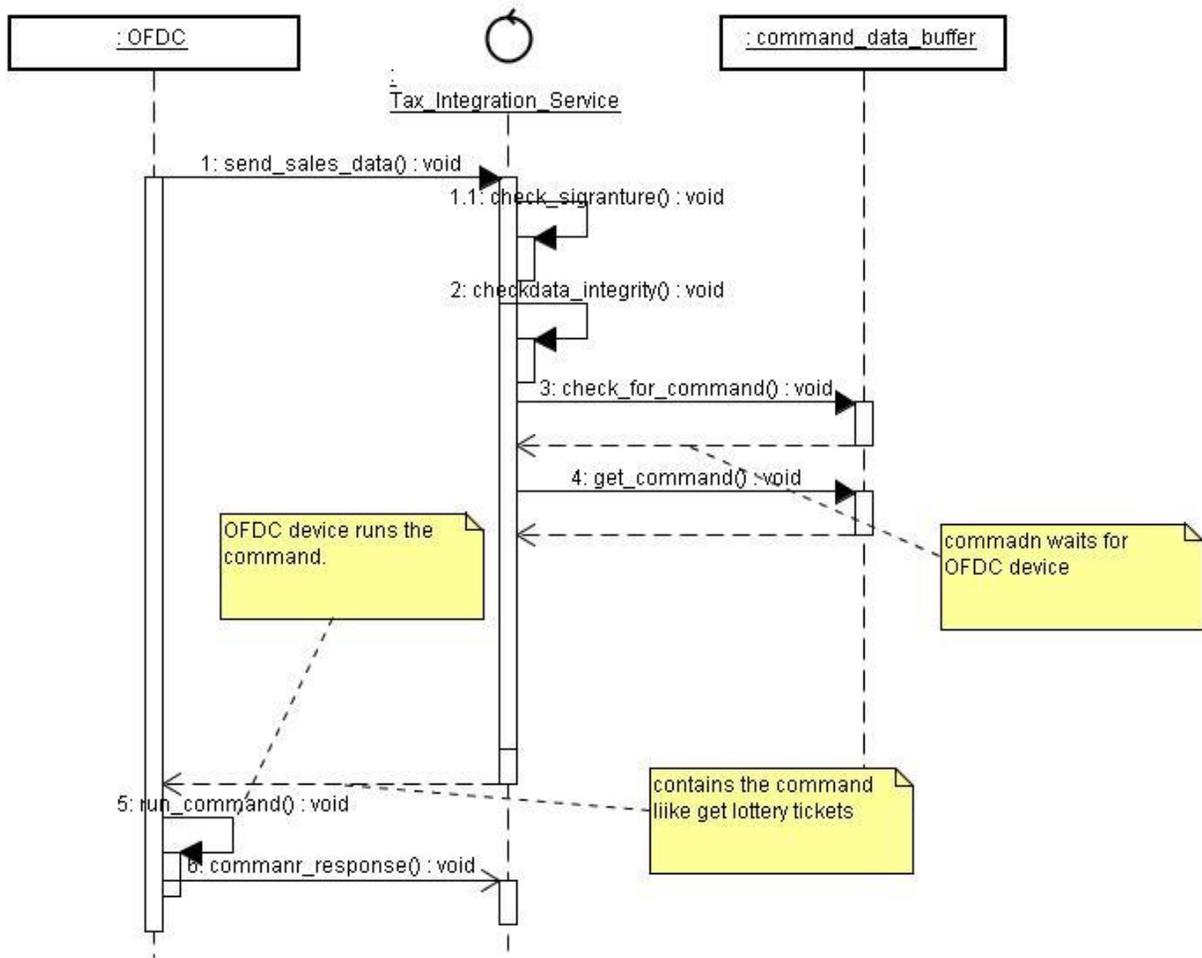
Sequence diagram, server response with OFDC device command

1. Client sends the request which is accepted by service. Service checks if the request is signed by checking the signature
2. if signature check is passed, service checks if the message is not corrupted
3. if that check is passed, the sales data extracted from request is sent to queue buffer for the sales data processing
4. after that, service queries for OFDC device command provision
5. service gets the details of the registered command to be provisioned to client
6. client gets:
   a. result code
   b. server signature which will be printed on slip
   c. command to run
7. client runs the command
8. client replies to server with command run result

This module has to expose its status. It has to expose the information related to resources that are used for the service which might have an impact on the module performance. The resources are:

- Number of database connections (used and available)
- The size of the buffer that is used for queuing requests from OFDC devices
- Number of error responses to OFDC devices in certain period of time
- Number of simultaneous web users accessing the module
- State of the connections towards:
  - Tax Service
  - POS data
  - OFDC data

One of the interfaces exposed by this module is to retrieve and post the Sales Invoice Transaction Details in format outlined in Annex-2. The interface has to accept:

- The retrieval of transaction details from a POS or list of POS
- The retrieval of transaction details for certain period of time. The time window has to be limited as this operation can decrease performance of the module
- The output is a list of retrieved sales invoices transaction details in specified format

Tax Integration Service module has to accept Sales Invoice details specified in excel or CSV format. The typical use case is to be able to upload the sales invoice transaction data coming from OFDC Electronic Journal

One of the interfaces exposed by this module is the Web service based interface data provisioning from external Tax Service. The interface has to be secured. As all secured and web service interfaces, this one should be also RESTFul with usage of https internet secured protocol. Thus it has to accept the authorized user requests and communication has to be established via https secured protocol.

Sales data processing:

After the sales data are extracted from sales data transaction request, it is sent to queue buffer for post processing. The processing consists of:

- Persistently stores the sales data together with request context (timestamp, pos ID, EFDC ID …)
- Prepares the sales data for post-processing which includes:
o Extracts the sales data details and request context details
o Stores the extracted data for various reports.
The Tax integration service and component that encapsulates the queue buffer must be strongly coupled. The reason is to decrease the network latency between these two components as this is a mission critical, on-line service.

All parameters related to connection establishing between these two components should be part of the tax service configuration.

Buffered Queue mode details

If the connection between tax integration service and queue buffer is broken, the service has to provide:

- No loss of sales transaction data

- No duplicates of sales transaction data

Thus, the service has to provide the alternative repository for data persistency, data re-synchronization after connection establishing and the algorithm and/or data constraint to ensure no data duplication. After connection is established, the automatic data synchronization has to be started.

This mode operation, called buffered queue mode is considered as alternative service mode and in this mode, the service cannot last for long time. Thus, it has to be supported with Alerts and notifications. Since this requires fast reaction of the system operator, the system will:

- Send the alert with defined priority (SMS or e-mail)

- Show a pop up alert message to pinpoint the cause of the service transition to queue buffer mode

OFDC device can receive commands from Tax integration service. These commands are applicable to all OFDC devices or to preconfigured set. An operator responsible for setting up the OFDC commands has the ability to:

- ‑   Setup the type of the command to be sent to OFDC

- ‑   Setup a time when the commend should be sent. The commands are:

‑   Changing the task rates. The server should maintain the latest task rates applied on the OFDC devices and the ability to add new ones.
‑   URL addresses configuration. There are 2 URL address that can be configured:
o   QR code URL
o   URL for communication with Tax Integration Service.
‑   Time period (in days) for OFDC offline mode
‑   Firmware update. The server should maintain the latest URL version on the device. The server should also have the ability to:
o   Specify allowed version transitions
o   Specify new firmware version per OFDC device
o   Check if the version is ready for download
‑   Block/unblock the device. This is a toggle operation (change the previous state)
The command setup process should be done by the authorized user.

Data backups and security:

The backup should contain the data for at least 5 years in time. The backup should be easily restored and restored data should be ready for usage.
The Tax integration service exposes different interfaces for OFDC devices, enquiry/confirmation messages. All communication between tax integration service and different devices and components should be logged with: timestamp, user credentials, data received and data posted.

Alerts and notifications:

Tax Integration service sends alerts and notifications for different reasons (different alerts and notification types). The service has to expose the interface to setup which contact can receive what type of alert or notification. There are two channels for sending the alerts and notifications: via SMS or e-mails through Microsoft Exchange. This has to be also configurable.

Auto-restart and deploy:

Tax integration service has to provide ability to auto-update. Upon releasing of package with patches/fixes, it should enable deploy and restart of the service using web application.

4.3.3. Business Logic Manager

This component is responsible for POS, OFDC and CIS data management. It also exposes the RESTful based interface for data provisioning.

One of the data management operations is registration of OFDC device.

Once the OFDC device is installed at tax payer point of sale, the device is not yet ready for operation. It has to be first registered and activated in the main tax service. The registration of OFDC device sets:

-	Data related to the new point of sale like:
	SNTN
	Pos station id
	Login id
	Password
	Client ip
	Sales invoice date, id, time
	Customer Cell number
	Address
	Contact person
	Phone
	E-mail
	Point of sale type of business
-	The ID of the OFDC device is bind to the new point of sale

After registration, the point of sale is still not activated. Upon activation, it can issue the invoices.

4.3.4. Operation & Maintenance Manager (O&M)

One of the functional requirements is to provide a support for operation and maintenance of TSS server. O&M module has to provide ability to:

- Interrogate the system status – resources used and components health check
- Trace the various events that are recorded in the system like System events, connection events, number of uploads in certain time period …
- Web services status check. Each web service has to implement 'health check' operation. From the O&M module, the health check interface will be called in equal time periods to obtain web services status.
- As already mentioned, all Managed components has to provide re-start function

The system dashboard page is the first page of the O&M system module. The dashboard page contains:

- Section for current system status (resources, web services, SMS and e-mail external services …)
- Section with list of recorded system events in recent time period

Possibility to trace the logs and to pinpoint the problem based on the log information

4.3.5. Business Intelligence Manager (BI)

In the BI module, it is possible to manage custom query scripts. The CRUD operations are supported under the BI scripts. The script builder supports:
- Field selection to be queried. The fields are offered from:
o Point of sale data
o OFDC data
o Sales invoice data
- Selection condition specification. It is done by specifying one or more filed values, condition operation …
- Section for data grouping condition specification

There is a support for running the existing BI scripts. It is possible to run them manually by selecting the script from the list and pressing the execution or running in scheduled time with time intervals repetition. There is also support of auto-run BI scripts as a result of trigger events. In this case, it is possible to notify users upon script execution finish . As a result of a script execution, the result set is kept in the result table for reporting and additional business analysis.

It is strongly recommended to use the BI module facilities to create prepared data for certain types of Reports. The BI scripts should run on the same RDBMS server where reports are run. This RDBMS service is decoupled from main data storage as BI scripts and report queries running can influence the performance of other database queries used for on-line data transactions.

4.3.6. Alerts & Notifications Manager (A&M)

Notification module consists of:

Notification management portal. This is a web user interface used to:

-	Obtain the list of notification types. Each notification type is associated with system event or defined trigger
-	Registering the system user to be notified with certain notifications.
-	Choose the notification channel for the user to be notified (by SMS or e-mail)
-	Changing the severity of the notification. It defines the seriousness of the notification. The severity could be major, minor or immediate action.
-	Information associated with notification. The information text can be changed. The text can contain tags in the text that can be dynamically swapped with proper information (like the name of the component) upon a user notification sending.
-	For e-mail notifications, it is possible to setup the html based layout.
-	Scheduler component which is responsible for running the system tasks for system job execution (like scanning the system resources for updating the system status information) and sending the user notifications if the conditions for sending is fulfilled
-	For some of the notification types there is a third channel to send a notification: to the O&M dashboard (in-app notifications). This should be used for all notification types with severity 'immediate action' as this will result in pup up notification dialog on dashboard page. This can be achieved by using a 'push' messaged via web socket http protocol.
-	The triggers for sending user notification are pre-defined or defined upon creation of BI scripts. Triggers will fire the events (end thus notifications) upon an end of the script execution or matched condition

Each 'immediate action' severity notification will be rendered on O&M dashboard. The possible actions are: acknowledge and closure. With notification acknowledge, the notification is assigned to one of the system operators as responsible person. Once the issue is resolved, the responsible person can close the notification.

4.3.7. **Reporting Manager**

Report module provides various reports and report options in TSS server. The reports are:
- Reports based on collected fiscal data. These type of reports can be grouped by:

o   By Business Type of POS
o   By OFDC devices
o   By date
o   By Month
o   By year

These types of reports can be used for:

-   Sales pattern analysis
-   Fiscal data discrepancy analysis
-   Comparative sales analysis
-   Sectorial sales analysis
-   Fiscal receipts pattern analysis
-   Risk analysis like:
o obtaining risk profiles of registered business Unit
o sectorial risk analysis using normal sales patterns
-   Reports for system administrator. Report are based on:
-   User level. Report contains:
o   User, user profile and user actions grouped by user in specified time period
o   Possibility to drill down by user. The new report will present details of user actions
-   Sever log details. This report contains:
o   All system events groped by event type
o   Possibility to drill down by system event. The new report will present details of event: timestamp and logged information

The report module should provide following report options:

- Obtaining linear charts and graphs especially for sales data reports
- Filter specification, especially filter by time period
- Built-in reports
- Export in excel/csv file formats
- Drill-down options. Possibility to obtain summary and detailed reports in user friendly way. The reports should be presented in a tabular format. All summary reports should have the possibility to obtain detailed reports based on the selected value in table.
- All standard summaries and reports for sale invoice data
- All reports with filter criteria selection and form to date criteria
- Search and tracking options in data
- All risk profile reports, risk index with risky transaction detail reports
- Configurable Menu from User Roles. Addition & Removal option of any MIS Report
- Sales Pattern Analysis Tools for Individual or Group POS Units of given period
- All BI Reports and Scripts, saved and available for Report Printing in User Menu

For example, the drill-down pattern should be: Business Unit, OFDC device, fiscal sales transactions. In first summary report, the data are broken down by Business Units

Business Unit	No. OFDC devices	Revenue
Clubs	234	237800
Beauty parlours	43	8945
Restaurants	6346	4679322

Table 1: first summary report

The table contains business unit name, number of OFDC devices with registered transactions with summary of sales amount. By using a drill down option, user can select particular business unit that he/she wants to explore. In next report, the data for selected business unit is presented broken down on OFDC devices.

OFDC device	POS name	Pos address	No of Transactions	Revenue
OFDC Device 1	POS 1	Pos address 1	3	23
OFDC Device 2	POS 2	Pos address 2	7	34

OFDC Device 3	POS 3	Pos address 3	23	446
….	….	…		…
OFDC Device 43	POS N	Pos address N	5	89

Table 2: drill down by Business unit (Rent-a-car), 2nd summary report

The table will contain all OFDC devices with transactions in selected period with its details (POS details) and summary of sales amount. By using selected OFDC, user can drill-down deeper. In next table, the sales transaction details are obtained for particular OFDC device like: sales details, time stamp, amount …

Time	Transaction ID	Sales details	Amount
2017-10-02 11:23:05	326546546	xxxxxxxx	23
2017-10-02 12:25:03	367456454	xxxxxx	34
2017-10-02 16:18:25	375437777	xxxxxx	70

Table 3: drill down by OFDC device(OFDC Device 1), 3rd detailed report

Reporting module has to provide the way to select reports that can be issued by user profile. It can add/remove Report type (or more than one) from the particular user profile.

Reporting performance and on-line service impact

The reports should be generated from the backup data system. The report functionality, especially with 'heavy queries' which requires lot of resources should not have an impact on on-line data traffic in Tax Server. It is recommended that reports are run on separate machine (hardware). To obtain the reports in real or near real time, it is recommended to implement data preparation for certain report types. Also, best practice is to utilize data partition and data indexing in RDBMS database.

4.3.8. Administration Manager

This is a System Administration and configuration module. **This Module provides set up the credentials and parameters for establishing the connections to POS Database. The database connection data are:**

- IP and port of the database service (or URL if database supports it)
- Credentials (username/password)

It also provides the set up the credentials and parameters for establishing the connections to Tax Authority Server. The connection data is:

- **URL to Tax Authority Server**
  Credentials (username/password)

One of the responsibilities of admin module is a setup and configuration of SMS and e-mail external service parameters. For e-mail service, the administrator has to specify:

- Smtp external service IP address and port
- Credentials for e-mail service user used as a message sender
- For SMS sending service, it depends which protocol is used:
o   with direct connections with SMS providers, it is possible to use smpp protocol or ParlayX web service based protocol
o   With other SMS send service providers, the protocol is usually https.

Thus, all configuration parameters for SMS service are driven by choose SMS service provider and their external interface.

4.3.9. RDBMS Manager

The TSS Service should use one of the industry standard approved RDBMS database systems, open or commercial in use. The examples are:

- ORACLE
- MS SQL Server
- Postgres
- MySQL

As previously specified, the RDBMS database component is a central place for all Tax related data. It has to run in cluster mode, active/standby nodes in cluster with on line, real time synchronized data.

4.3.10. Taxpayer Reward Service

Taxpayer reward schema will be supported as a separate service from the tax service. It will provide:

- On-line Issuance of lots based on command specified for OFDC device. The server will provision certain amount of lots to OFDC device. The amount of lots is configurable.
- The service will be contacted from the TSS server using a secured connection (Virtual Private Connection) established between TSS server and reward schema server
- The service will provide the pool of lots which are created for issuance.
- This pool must be created based on the lottery game that is valid for certain period of time. After period expiration, the lottery tickets are removed from the pool.
- This is a mission critical service which works in on-line traffic use cases. The response time of the service has to be comparable with response time of other on-line, mission critical components of the system

Parameters by given below or as per industry standard

Sr.	Field Name	Description
1.	**SNTN**	Text (10) - Format XXXXXXX-X , Not Null
2.	**POS Station ID**	Number (12,0) , Not Null
3.	**Login Name**	Text (50) / Encrypted, Not Null
4.	**Password**	Text (50) / Encrypted, Not Null
5.	**POS Sub-Station ID**	12 digit Number (Number 12,0) / 0 for Main Station , Not Null
6.	**Client IP**	Text (50) , Not Null
7.	**Business Name**	Text (200) , Not Null
8.	**Business Address**	Text (200) , Not Null
9.	**Sale Invoice ID**	Text (50) / Encrypted (without leading spaces) , Not Null
10.	**Sale Invoice Date**	Date (Format YYYY-MM-DD) , Not Null
11.	**Sale Invoice Time**	Time (Format HH:mm:ss 24Hour time format) , Not Null

12	Customer NTN	Text (50) (NTN of customer)
13.	Customer Mobile No	Text (50) (Mobile No of customer)
14	Customer Card-No	Text (50) (Swap Card No) Any-One of 12,13,14 must
15.	Customer Name	Text (200)
16.	Customer Address	Text (200)
17.	**Total Items**	Description(s) (comma separated if > 1), Not Null
18.	**Total Quantity**	Number (12,0) , Not Null
19.	**Total Discount**	Total Discounts, Number (12,2), Not Null
20.	**Sales Invoice Amount**	Net Sales Invoice Value, Number (12,2) , Not Null
21.	**Sales Tax Rate**	Applicable Sales Tax Rate Charged, Number (4,2) , Not Null
22.	**Sales Tax Amount**	Number (12,2) , Not Null
23.	**Sales Tax Withheld**	Number (12,2) , Not Null

ANNEX A   <u>EVALUATION CRITERIA</u>

Sr.#	Measurements Factors / Descriptions		Score Gained	Maximum Score
1	**Financial Strength of the Organization**			
1.A	**Turnover**			
	Average Annual Turnover (As per last three years Audited Financial Statements)			
		PKR 1000 million and above	**20**	**20**
		PKR 850 million to PKR 999 million	**15**	
		PKR 700 million to PKR 849 million	**10**	
	-			
2	**Relevant Experience of the Organization**			
2.A	POS projects completed during the last 5 years costing per project:			
		PKR 500 million or above	**20**	**20**
		Between PKR 400-499 million	**15**	
		-Between PKR 300-399 million	**10**	
		PKR 299 million and below	**5**	
2-B	Number of POS projects completed during the last five years			
		3 or more projects	**5**	**5**
		2 projects	**4**	
		1 project	**3**	

2-C	Experience of the team leader for the completed IT related projects costing PKR 5 million and above.			
		3 or more projects	**10**	**10**
		2 projects	**7.5**	
		1 project	**5**	
2-D	Number of IT Specialist/Experts in the team			
		7 and above	**10**	**10**
		Between 3-6	**7.5**	
		Less than 3	**5**	
3	**Methodology & Deliverables** **(as evidenced in the proposal and discussions where applicable)**			
3.A	Implementation approach, quality (e.g. detailed project work plan, UAT approach, Client Acceptance Report etc.)			
		1. Good	**4**	**4**
		2. Average	**3**	
		3. Below average	**0**	
3.B	Quality of prototyping / solution features / functionalities / screenshots provided & shared (following will be considered): 1. Solution design and development technology 2. Data preparation / analytics tools / OLAP 3. Tax business intelligence analysis, reporting, dashboards 4. Custom reporting features & functionalities			
		1. Good	**3**	**3**
		2. Average	**2**	
		3. Below average	**0**	
3.C				
	Availability and quality of comprehensive related IT Product functionalities, as well as technical system			

	documentation / manuals (e.g. user manuals, business data dictionaries etc.)			
		1. Good	**3**	**3**
		2. Average	**2**	
		3. Below average	**0**	
3.D				
	Trainings (number of hands-on training sessions and availability / quality of training material)			
		1. Good	**4**	**4**
		2. Average	**3**	
		3. Below average	**0**	
3.E	Extent coverage of post-implementation IT support (on the basis of covered period, charge-out terms, on-site support etc.)			
		1. Good	**3**	**3**
		2. Average	**2**	
		3. Below average	**0**	
3.F				
	Compatibility Standards, Interfacing and Upload capability (Integratable with existing systems / databases as well as standard interfaces for leading /upcoming systems)			
		1. Interfacing with all existing and upcoming systems available	**3**	**3**
		2. Limited interfacing with existing and upcoming systems available	**1**	

3.G	Live Demonstration of the proposed POS solution/model.			**15**
	TOTAL			**100**

REQUIREMENTS:

1. **Bidders securing 80 marks and above shall be technically qualified.**
2. **All documentary proofs/supporting references are required to be provided by the bidders.**
3. **SRB may ask for additional documentary evidence against any factor, which would need to be provided by the respective bidder.**
4. **SRB may ask the Bidders to present its technical proposal before the Procurement Committee during the technical evaluation.**

INSTRUCTIONS:

1. **Wherever 'Projects/Implementations of a similar nature' are mentioned, it means Point of Sales Invoicing/Taxation related IT Projects with standardized and advanced approaches of e-Invoicing and tax integration for any Tax Authority.**
2. **Domestically placed staff means staff that will be placed locally or physically present for SRB management throughout the duration of this IT system complete implementation on working days**

SRB has the right to change the ratings based on the quality/facts of the documentary evidence provided by the bidder during assessment

ANNEX B

SCOPE OF THE WORK:

1) **The selected firm will be responsible for supply of hardware, software components, integration, training and implementation services for establishment of end-to-end OFPOSIT system and integration with central IT system installed at SRB data center Karachi.**

2) **The selected firm will supply, install, configure and test all supplied hardware, associated software components, system application server and operationalize the system under fully functional integrated system mode and shall meet requirements described below:**

	Description
1	The selected firm will be responsible to supply hardware, software components, and installation services for OFPOSIT Equipment/Devices, integration of CIS (Certified Invoicing System) with OFDC (Online Fiscal Data Controller) and with OFDC to centralized IT system at SRB data center and successful commissioning with end-to-end connectivity. The firm will also be responsible for providing Network Connection and Bandwidth at each client node for server connectivity from client end.
2	Installation, development and provision of central Integration OFPOSIT Server/Servers along with Application System Software, Database and Integration Services for Client OFDC Devices which shall meet all the requirements defined in the **Section V - Technical Specifications**
3	Server and Application System should be accessible through Internet with encryption, User Authentication, roles and login-id controls.
4	Hot Switchable Backup Server System (as primary/secondary configuration) with same configuration and auto synchronized database and application status and auto-failover switching functionality.
5	Disaster Recovery / Fail-over support

The successful firm will be responsible for providing OFPOSIT solution with in-built fail-over plan and disaster recovery methodologies, meeting the minimum business continuity requirements of SRB, and minimize any data loss from disaster. OFPOSIT solution should meet normal standards and SRB services level requirements for recovery & switching time windows, and data loss preventions. Should support rapidly self-restart applications upon failure, automatic services status check-ups, automatic fixes and patches update, and affordable replication of data at remote sites. |
| 6 | On-Call and On-Site Maintenance and Support, Troubleshooting and Support for all the delivered OFPOSIT Equipment, Application System, Servers and Tax Integration Application, under a proper Service Level Agreement document for one year after the completion of support period i.e. three (3) years contract. |

7	Delivery of completely developed, fully Unlimited Usage Right of Tax Integration Server, Application Software with source code, Technical Documentation and Database Objects Details, Operational User Guides, Application System Installation CDs, Any 3rd Party Installation CD (if used), Licenses as applicable, any other Right To Information (RTI).
8	The source code for centralized Integration Server Application will be delivered after the successful commissioning of the system.
9	Supply of OFPOSIT system implementation plan, execution and completion of plans as per supplied schedule, smooth and timely User Acceptance Test (UAT), Integrated Testing and Acceptance Report.
10	Provide local IT support and maintenance of the OFPOSIT system hardware, software, optimization of servers during and after system commissioning.
11	Customization and Integration of hardware and software packages to strictly meet functional requirements, security and performance requirements of SRB.
12	Additional Features for OFPOSIT Solution • Client-Server Connectivity modes, Network, Data Communication mode, Security, Protocols • Central IT System, Connectivity Services, Dashboard, Database, Failover provisions, Administration & Monitoring functions, and MIS Reporting features • Client (business) side Point-of-Sale POS equipment, Software application and functionalities • Primary network connectivity should be preferred for GPRS/GSM mode which is widely available through telecom infrastructure exists in Pakistan for connecting all remote locations. However, DSL/Dial-Up connectivity mode should also available as secondary mode option in this System, for all type of client installation needs depending upon their invoice transaction volume and data size. • Configuration for fully functional POS Clients, system server connectivity in LAN & WAN mode • Providing Off-the-shelf/Custom built application software & packages
13	Support automatic transfer of all client-side transactions and logs to centralized integrated server of SRB as soon as successful connection is established.
14	Project Technical Team

		At least 25% of the project technical	

			team should be stationed in Karachi-Pakistan. Rest of the team could be visiting resource persons.		
15			Warranty & Support: Comprehensive warranty & 24x7x365 support will be provided for all supplied and deployed OFPOSIT system equipment. All equipment is required to be covered under a comprehensive 3 years full warranty inclusive for 3rd party tools. (Warranty will start after commissioning & UAT, Acceptance Report). Any training support that is required for the operation of the equipment must also be provided during this period.		
16			Trainings: **(Annexure v)** Twenty (20) SRB relevant employees and officers from certified training specialist/principal service provider with proper training facility for especially for the SRB employees and officers for OFPOSIT solution, centralized software, Business Intelligence (BI) builder tools, application software and integrated features. Training should include certified training specialist/principal service provider that can provide training to SRB personnel for centralized database failover, switching and backup & recovery functionalities. This training should also include MIS functionalities, Reporting Modules, BI modules and operations of tax administration modules Training outlines and areas, including number and qualifications of trainers, must be submitted with the proposal.		

Must be compliant with minimal requirements defined in the Section V - Technical Specifications.

Section VI. Forms

Forms

ANNEXURE C – TECHNICAL FORMS

ANNEXURE K – AFFIDAVIT

1. A-POWER OF ATTORNEY

A. POWER OF ATTORNEY TO AUTHORIZE A PERSON TO SUBMIT THE BID

NOTES FOR EXECUTION OF POWER OF ATTORNEY

☐ *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*

☐ *Also, wherever required, the Bidder (and in case of the Consortium, each member of the Consortium, wherever required) should submit for verification the extract of the charter documents and documents such as a resolution/power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.*

☐ *This Power of Attorney shall be notarised with the Notary Public.*

☐ *For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Pakistani Embassy and notarised in the jurisdiction where the Power of Attorney is being issued.*

☐ *Please find below the form and substance of the Power of Attorney.*

"FORM OF POWER OF ATTORNEY FOR SIGNING OF BID"

KNOW ALL MEN BY THESE PRESENTS, **WE**, _____ (*name of the firm and address of the registered office*) do hereby irrevocably constitute, nominate, appoint and authorise Mr. / Ms (Name), son/daughter/wife of _____ holding [*CNIC / Passport*] Number _____ and presently residing at _____, who is presently employed with [*us* OR *the Lead Member of our Consortium*] and holding the position of _____], as our true and lawful attorney (hereinafter referred to as the **Attorney**) to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our Bid for Supply of Online Fiscal Point of Sale Integration with Tax (OFPOSIT) System for SRB as more particularly described and indicated in the **this Bidding Documents**.

(Bid for the procurement of supply of OFPOSIT SYSTEMS) that is being developed by the SINDH REVENUE BAORD (SRB), GOVERNMENT OF SINDH (the **Authority**), in accordance with the Bidding Documents issued by the Authority (as amended from time to time) including but not limited to signing and submission of all applications, bids and other documents and writings, participate in bidders' and other conferences and providing information / responses to the Authority, representing us in all matters before the Authority, signing and execution of all contracts including the Contract Agreement and undertakings consequent to acceptance of our bid, and generally dealing with the Authority in all matters in connection with or relating to or arising out of our bid for the said Project and/or upon award thereof to us and/or till the entering into of the Contract Agreement with the Authority.

AND WE hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, , THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS _____ DAY OF _____ , 2017.

For & On Behalf of:

_____ (*name of the firm*)
By its duly authorized signatory

………………………………………..
(Signature)
(Name, Title and Address)

WITNESSES:

WITNESS 1:   **WITNESS 2:**

……………………………………   ……………………………………
NAME: NAME:
CNIC / PASSPORT NUMBER: CNIC / PASSPORT NUMBER:
ADDRESS: ADDRESS:

SIGNATURE OF ATTORNEY

[NOTARISED]

……………………………………
(Signature)
(Name, Title and Address of the Attorney)

B.   <u>P</u><small>OWER OF</small> <u>A</u><small>TTORNEY TO AUTHORIZE THE</small> <u>L</u><small>EAD</small> <u>M</u><small>EMBER OF THE</small> <u>C</u><small>ONSORTIUM</small>

<u>N</u><small>OTES</small> <u>F</u><small>OR</small> <u>E</u><small>XECUTION OF</small> <u>P</u><small>OWER OF</small> <u>A</u><small>TTORNEY</small>

☐   *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required, the same should be under common seal affixed in accordance with the required procedure.*

☐   *Also, wherever required, the Bidder (and in case of the Consortium, each member of the Consortium, wherever required) should submit for verification the extract of the charter documents and documents such as a resolution/power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.*

☐   *This Power of Attorney shall be notarised with the Notary Public.*

☐   *For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Pakistani Embassy and notarised in the jurisdiction where the Power of Attorney is being issued.*

☐   *Please find below the form and substance of the Power of Attorney.*

"F<small>ORM OF</small> P<small>OWER OF</small> A<small>TTORNEY</small> F<small>OR</small> L<small>EAD</small> M<small>EMBER OF</small> C<small>ONSORTIUM</small>"

W<small>HEREAS</small>, the SRB, G<small>OVERNMENT OF</small> S<small>INDH</small> has invited bids from bidders for the Supply of Online Point of Sale Integration with Tax (OFPOSIT) System and Allied Services (the **Project**) pursuant to the Bidding Document issued by the SRB (as amended from time to time) and other related documents relating to the Project (the **Bidding Document**);

W<small>HEREAS</small>, _____ , _____ and _____ (each hereinafter referred to individually as a **Consortium Member** and collectively as **Consortium Members**) have formed a consortium (the **Consortium**) pursuant to a Joint Bidding Agreement dated _____ [*Insert date of the Joint Bidding Agreement, as is required for each Consortium that bids for the Project*] for bidding for the Project in accordance with the terms and conditions of the RFP;

A<small>ND</small> W<small>HEREAS</small>, it is necessary for the Consortium Members to designate one of them as the '**Lead Member**' with all necessary power and authority to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium's bid for the Project and its execution.

NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS

WE, _____ , having our registered office at _____, M/s. _____ , having our registered office at _____ , and M/s. _____ , having our registered office at _____ , [the respective names and addresses of the registered office] (hereinafter collectively referred to as the "Principals") do hereby irrevocably designate, nominate, constitute, appoint and authorise M/s _____ , having its registered office at _____ , being one of the Members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (hereinafter referred to as the "Attorney") and hereby irrevocably authorise the Attorney (with power to sub-delegate) to conduct all business for and on behalf of the Consortium and any one of us during the 'Competitive Selection Process' and, in the event the Consortium is awarded the Contract, during the execution of the Project, and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the submission of its bid for the Project, including but not limited to signing and submission of all applications, bids and other documents and writings, participate in bidders' and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of the bid of the Consortium and generally to represent the Consortium in all its dealings with the GoS, and/or any other governmental agency or any person, in all matters in connection with or relating to or arising out of the Consortium's bid for the Project and/ or upon award thereof till the Contract Agreement is entered into with the GoS.

AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/ Consortium.

IN WITNESS WHEREOF WE THE PRINCIPALS ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS _____ DAY OF _____ 20**.

For:_____   For: :_____
(Signature)   (Signature)
(Name, Title and Address)   (Name, Title and Address)

For: :_____
(Signature)
 (Name, Title and Address)

Witnesses:

1.

2.

(Executants)

(To be executed by all the Members of the Consortium)

---

2. COMMITMENT FORM

BID
for the Supply of Online Fiscal Point
of Sale Integration with Tax (OFPSOSIT)
System and Allied Services for Sindh
Revenue Board (SRB), GoS

[*Date To Be Provided*]

COMMITMENT FORM

A Commitment form must be completed by the Bidder and by each of its Members and Participants, and by Key Individuals who are not employees of the Bidder, a Member, or a Participant.

TO: SINDH REVENUE BOARD, GOVERNMENT OF SINDH

For sufficient good and valuable consideration, receipt of which is hereby acknowledged, we hereby agree to the following:

1. **DEFINITIONS**

   Unless the context indicates otherwise, all capitalized terms and expressions used herein and in our Bid have the meaning given to them in the Bidding Documents (*as defined herein below*).

2. **GENERAL**

   We, the undersigned, acknowledge, confirm, and agree that:

   A) we have examined, read, and understood the General & Special Conditions of the Contract (including its schedules) respectively dated [*date to be provided*] and [*date to be provided*] as it relates to the Contract, as amended by way of addenda (collectively, the **Bidding Documents**); and

   B) we have satisfied ourselves that we have a full and complete understanding of the nature and location of the Project, as well as of the general and local conditions and the other conditions under which the Contract Agreement will be carried out.

3. **PRICING**

   We confirm that all prices appearing in our Bid are expressed in PKR, and represent aggregate prices that include all taxes.

4. **REVISED AND FINAL CONTRACT AGREEMENT**

We declare and confirm that we are prepared to execute the revised and final Draft Contract Agreement, as modified by addendums, without any negotiation or amendment thereof, with the exception of minor changes to include features that are specific to the Bid of the Successful Bidder.

6. **FIRM AND IRREVOCABLE BID**

Our Bid constitutes a firm offer to the SRB, that is irrevocable and binding upon us, and that it cannot be withdrawn or amended until after a period of six months following the Bid Deadline indicated in the Bidding Document.

7. **BID COMPLIANT WITH SUBMISSION REQUIREMENTS**

We declare and confirm that our Bid satisfies and complies with the submission requirements indicated in the Bidding Documents, specifically including:

✦ the eligibility criteria;
✦ the evaluation criteria;
✦ the technical proposal compliance evaluation criteria;
✦ the financial proposal compliance evaluation criteria.

8. **BIDDING DOCUMENTS**

We acknowledge, confirm, and agree that our Proposal is subject to the terms and conditions of the RFP, including all disclaimer clauses and all limitation of liability clauses in favour of the Government of Sindh or any other party mentioned therein. In particular, we acknowledge, confirm, and agree that we are bound by the terms and conditions of the Bidding Documents.

9. **NO MATERIAL DETERIORATION**

We hereby declare and warrant that:

✦ with the exception of what is indicated in detail in a written document attached to this letter, our financial situation and our business operations have undergone no adverse material change since the date of the most recent financial statements submitted along with the Bid;

✦ with the exception of what is indicated in detail in a schedule attached to this letter, there is no action, suit, or proceeding pending against us, or, to our knowledge, after satisfactory investigation, imminent against us or legally concerning us brought before or by any organization, tribunal, commission, board, agency, or federal, provincial, municipal, or other office, domestic or foreign, or brought before or by any arbitrator or arbitration board, that could, in the event of an unfavourable decision, have a material adverse effect on our solvency, liquidity, or financial situation; and

✦ with the exception of what is indicated in detail in a schedule attached to this letter, we are not aware of any reason for which an action, suit, or proceeding could be brought against us.

10. NO COLLUSION OR CONFLICT

In preparing and submitting our Bid, we declare, warrant, and confirm that we have not discussed or communicated, either directly or indirectly with any other Bidder, or with any officer, director, employee, consultant, advisor, agent, or representative of any other Bidder (including any member, participant, or key individual of the team of a Bidder) regarding the content, preparation, or presentation of its Proposal. Our Proposal has been submitted without any relation (including a relation solely in the form of a shareholding or other interest in the ownership of a Bidder or of a member, participant, or key individual of the team of the Bidder, with the exception of a holding of less than 1% of the voting shares of any company whose shares are traded on a recognized stock exchange), knowledge, exchange, or comparison of information or any arrangement with any Bidder or any director, officer, employee, consultant, advisor, agent, or representative of any Bidder (including any member, participant, or key individual of the team of a Bidder).

We hereby declare, warrant, and confirm that we do not have any knowledge, either direct or indirect, of any Bid of any other Bidder, and that we do not have any interest in any such Proposal, and that we have not concluded any agreement or understanding or any formal or informal arrangement that could result in our having such knowledge or interest prior to the submission of our Proposal.

With the exception of what is indicated in detail in a schedule attached to this letter, we hereby declare, warrant, and confirm that, to our knowledge, no real or apparent Conflict of Interest has arisen, exists, or is reasonably likely to arise in the future in connection with the submission of our Bid in response to the Bidding Documents, or in connection with the delivery of the goods and services required of under the draft Contract Agreement.

We hereby declare, warrant, and confirm that we have no access to any confidential information belonging to the Sindh Revenue Board, Government of Sindh, and that we are not in a position to take advantage of any right of access to such information (other than confidential information that the SRB, Government of Sindh may communicate to all Bidders).

11. FURTHER WARRANTIES

We hereby represent and warrant that all information, data and materials of any nature whatsoever provided by us in the Bid is true and accurate and not misleading in any nature.

We have made a complete and careful examination of the Bidding Documents and have received all the relevant information from the SRB,GoS, as required for the purposes of submission of the Bid. We further warrant that we have verified and understand all the information received from the SRB,GoS in connection with the Bidding Documents.

12. EVIDENCE OF AUTHORITY

We acknowledge that the Sindh Revenue Board, Government of Sindh requires that each of the undersigned (other than a Key individual) provides evidence, in the form of a resolution in a form deemed acceptable by the Sindh Revenue Board, Government of Sindh, that the person signing this Commitment Form on behalf of the undersigned has the authority required to do so and to bind the undersigned.

13.   COPIES

This Commitment Form may be signed in multiple copies, each of which is deemed to be an original, and these copies together shall constitute a single instrument.

IN WITNESS WHEREOF we have signed this Commitment Form on [date to be provided].

Bidder:

_____
(Name)

_____
(Street address or postal box number)

_____
(City, Province, and Postal Code)

Authorized signatory: _____

Name and title: _____
(Please type or print)

IF THE BIDDER IS A CONSORTIUM OR OTHER ENTITY:

Executed and delivered by: _____

[***NAME OF THE CONSORTIUM OR OTHER ENTITY**] by its duly authorized representative, and by [**provide particulars on the signature**]:

_____
[NAME OF BIDDER *]

_____
(Authorized signatory)

_____
(Authorized signatory)

Each of the undersigned hereby:

□ acknowledges that the Bidder has signed the above-mentioned Commitment Form;

□ acknowledges and confirms that he has read, reviewed, and understood each of the provisions of the Proposal, that he accepts them, and that the Proposal has been submitted with his consent;

□ confirms and agrees that the provisions of Sections 2, 8, 9, 10, 11, and 12 apply to him, with such modifications as the circumstances require.

EXECUTED on   .

Member:
       (Name)

Name and title:
       (Please type or print)

Authorized signatory:
        (Name)

Name and title:
       (Please type or print)

Participant:
       (Name)

Name and title:
       (Please type or print)

Authorized signatory:
        (Name)

Name and title:
       (Please type or print)

Key individual*:
       (Name)

Name and title:
       (Please type or print)

* Applicable to Key Individuals who are not employees of the Bidder, a Member, or a Participant

3. **DECLARATION**

We the undersigned return this Bid submission, the Bids and its appendices, and acknowledge that we are bound by its content.

We confirm that we are fully conversant with the requirements of the SRB, GoS and the subject matter of the procurement exercise as set out in the Bidding Documents.

By submitting a Bid, we represent and warrant to the SRB,GoS that our Bid has been prepared, relies and has been submitted solely on investigations, examinations, knowledge, analyses, interpretation, information, opinions, conclusions, judgments, and assessments independently undertaken, formulated, obtained, and verified by us and our team members and not in any way upon any action or omission, the scope, timeliness, accuracy, completeness, relevance, or suitability of any Information. We further warrant that we understand all aspects of the Bidding Documents and its governing rules including but not limited to the evaluation criteria laid down in this Bidding Documents and that the same is in line with the Sindh Public Procurement Rules, 2010.

We warrant that the details of this submission in response to the Bidding Documents have not been communicated to any other person or adjusted in accordance with any agreement or arrangement with any other person or organization.

We acknowledge that the SRB, GoS is not bound to proceed with the procurement exercise and reserves the right at its absolute discretion to accept or not accept any Bid submitted and thereafter invite any Successful Bidder to enter into a Contract Agreement for the delivery of the Project.

We certify that we have full power and authority to submit this response to the Bidding Documents and that this is a bona fide submission in response to the RFP.

Signed for and on behalf of   _____
(Bidder/consortium member) Signature: _____

Position Name:
Address: _____
Power of attorney   _____
attached: (YES/NO) Date: _____

(Please return this declaration on your company's letter head.)

4. **Bid Form and Price Schedules (to be submitted with financial bid)**

Date: _____

IFB Nº: _____

To: *[name and address of SRB]*

Gentlemen and/or Ladies:

Having examined the bidding documents including Addenda Nos. *[insert numbers],* the receipt of which is hereby duly acknowledged, we, the undersigned, offer to supply and deliver Goods and Services in conformity with the said Bidding Documents for the sum of *[total bid amount in words and figures]* or such other sums as may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements.

If our Bid is accepted, we will obtain the guarantee of a bank in a sum equivalent to _____ percent of the Contract Price for the due performance of the Contract, in the form prescribed by the SRB.

We agree to abide by this Bid for a period of *[number]* days from the date fixed for Bid opening under Clause 22 of the Instructions to Bidders, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded the contract, are listed below:

Name and address of agent	Amount and Currency	Purpose of Commission or gratuity
_____	_____	_____
_____	_____	_____
_____	_____	_____

(if none, state "none")

We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this _____ day of _____ 19_____.

_____   _____
[signature]   *[in the capacity of]*

Duly authorized to sign Bid for and on behalf of _____

Price Schedule in Pak. Rupees

Name of Bidder _____.   .

1	2	3	4	5	6	7
Sno	Item	Description	Country of Origin	Qty	Unit Price Delivered Duty Paid (DDP) named place (in PKR)	Total DDP per item (in PKR)
1	Server machines for POSIT tax system application	Compliant with Specs of Tax System Servers Annexure – I		7		
2	OFDC with SAM Card	Compliant with specs Annexure-II		550		
3	CIS	Complaint with specs Annexure-III		550		
4	POSIT Server Racks for Data Center	For 4U form factor size server machines compatible, with all ancillary cables and installation		2		
5	Operating System Software with licence	64 bit with Fail Over cluster and support application software functionalities		7		
6	Tax integration system application software with installation media/CDs	Fully compliant with required functional specs. Bundled software with BI application, development kits and database application etc. as required for tax integrated system incldue all ancillary components and Built-In system modules Annexure - IV		1		
7	Technical Documents operational User Guides	In hard copy and soft copy (CDs) for all provided software applications		1		
8	OFPOSIT Applications Server Software (Source Code)	Full ownership rights transferred to Tax Authority upon successful deliver of system with end-to-end integrated UAT		1		
9	Digital Certificate for Communication Servers	For SSL secured encrypted connectivity		1		
10	Internet Connection of 10 Mbps for communication Tax Servers	Include for 3 years (After this period Tax Authority will maintain such internet connectivity)		10 Mbps		
11	Full Configuration, Installation of OFPOSIT Tax system and servers	With operational testing and end-to-end integration with clients		1		
12	Full Installation of OFPOSIT clients with all ancillary equipment	With operational testing and end-to-end integration with tax server system		550		
13	Application Software with installation media (CDs)	Full complaint with required functional specs) Bundled software with all required modules and components compatible with POS machines Annexure-III		1		
14	CIS communication Application Client (Source Code)	Full ownership rights transferred to Tax Authority upon successful delivery of CIS/POS communication and its auto update/ patches/ fixes downloaded features from tax authority website as needed		1		
15	Technical Training for IT officials (20 officers/officiald) for tax system maintenance, operations and troubleshooting	Training for IT professionals of Tax Authority for providing tax system, security , BI alert management and administration and other technical needs (See Annexure-V in Scope of Work)				
16	SLA for End-to-End technical support	On-Call/ On Site services support for all provided system and applications		01 year after 3 year warranty period		

Signature of Bidder _____

Note: In case of discrepancy between unit price and total, the unit price shall prevail.

5. Bid Security Form
(to be submitted with Financial Bid)

Whereas *[name of the Bidder]* (hereinafter called "the Bidder") has submitted its bid dated *[date of submission of bid]* for the supply of *[name and/or description of the goods]* (hereinafter called "the Bid").

KNOW ALL PEOPLE by these presents that WE *[name of bank]* of *[name of country]*, having our registered office at *[address of bank]* (hereinafter called "the Bank"), are bound unto *[name of SRB]* (hereinafter called "the SRB") in the sum of for which payment well and truly to be made to the said SRB, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this _____ day of _____ 19____.

THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or

2. If the Bidder, having been notified of the acceptance of its Bid by the SRB during the period of bid validity:

    (a) fails or refuses to execute the Contract Form, if required; or
    (b) fails or refuses to furnish the performance security, in accordance with the Instructions to Bidders;

we undertake to pay to the SRB up to the above amount upon receipt of its first written demand, without the SRB having to substantiate its demand, provided that in its demand the SRB will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force up to and including twenty eight (28) days after the period of bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

_____
[signature of the bank]

6. Contract Form

THIS AGREEMENT made the _____ day of _____ 19_____ between *[name of SRB]* of *[country of SRB]* (hereinafter called "the SRB") of the one part and *[name of Supplier]* of *[city and country of Supplier]* (hereinafter called "the Supplier") of the other part:

WHEREAS the SRB invited bids for certain goods and services, viz., *[brief description of goods and services]* and has accepted a bid by the Supplier for the supply of those goods and services in the sum of *[contract price in words and figures]* (hereinafter called "the Contract Price").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the General and Special Conditions of Contract.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz.:

(a)   the Bid Form and the Price Schedule submitted by the Bidder;
(b)   the Schedule of Requirements;
(c)   the Technical Specifications;
(d)   the General Conditions of Contract;
(e)   the Special Conditions of Contract; and
(f)   the SRB's Notification of Award.

3. In consideration of the payments to be made by the SRB to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Procuring agency to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract

4. The SRB hereby covenants to pay the Supplier in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by _____ the _____ (for the SRB)

Signed, sealed, delivered by _____ the _____ (for the Supplier)

7. Performance Security Form

To: *[name of SRB]*

WHEREAS *[name of Supplier]* (hereinafter called "the Supplier") has undertaken, in pursuance of Contract No. *[reference number of the contract]* dated _____ 19_____ to supply *[description of goods and services] (*hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a bank guarantee by a reputable bank for the sum specified therein as security for compliance with the Supplier's performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, up to a total of *[amount of the guarantee in words and figures],* and we undertake to pay you, upon your first written demand declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limits of *[amount of guarantee]* as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the _____ day of _____19_____.

Signature and seal of the Guarantors

_____

[name of bank or financial institution]

_____

[address]

_____

[date]

8. Bank Guarantee for Advance Payment

To: *[name of SRB] [name of Contract]*

Gentlemen and/or Ladies:

In accordance with the payment provision included in the Special Conditions of Contract, which amends Clause 16 of the General Conditions of Contract to provide for advance payment, *[name and address of Supplier]* (hereinafter called "the Supplier") shall deposit with the SRB a bank guarantee to guarantee its proper and faithful performance under the said Clause of the Contract in an amount of *[amount of guarantee in figures and words]*.

We, the *[bank or financial institution]*, as instructed by the Supplier, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the SRB on its first demand without whatsoever right of objection on our part and without its first claim to the Supplier, in the amount not exceeding *[amount of guarantee in figures and words]*.

We further agree that no change or addition to or other modification of the terms of the Contract to be performed thereunder or of any of the Contract documents which may be made between the SRB and the Supplier, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition, or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment received by the Supplier under the Contract until *[date]*.

Yours truly,

Signature and seal of the Guarantors

_____

[name of bank or financial institution]

_____

[address]

_____

[date]

9. INTEGRITY PACT

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC PAYABLE BY THE BIDDERS

CONTRACT NUMBER: _____   **DATED:**   ,[●]

CONTRACT VALUE: _____

CONTRACT TITLE: SUPPLY OF ONLINE FISCAL POINT OF SALE INTEGARTION WITH TAX (OFPOSIT) SYSTEM FOR SINDH REVENUE BOARD

[*Bidder*] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Sindh (the GoS) or any administrative subdivision or agency thereof or any other entity owned or controlled by it (i.e. the GoS) through any corrupt business practice.

Without limiting the generality of the foregoing, [*Bidder*] represents and warrants that it has fully declared the brokerage, commission, fees etc., paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit, in whatsoever form, from the GoS, except that which has been expressly declared pursuant hereto.

[*Bidder*] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with the GoS and has not taken any action or will not take any action to circumvent the above declaration, representation or warranty. [*Bidder*] accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty.

It agrees that any contract, right, interest , privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to the GoS under any law, contract or other instrument, be voidable at the option of the GoS.

Notwithstanding any rights and remedies exercised by the GoS in this regard, the [*Bidder*] agrees to indemnify the GoS for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to the GoS in an amount equivalent to ten time the sum of any commission, gratification, bribe, finder's fee or kickback given by [*Bidder*] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit, in whatsoever form, from the GoS.

Acknowledged, Accepted & Agreed   **Acknowledged, Accepted & Agreed**

For & On behalf of:		For & On Behalf of:
SINDH REVENUE BAORD, **GOVERNEMNT OF SINDH, through its duly authorized signatory**		**[INSERT NAME OF BIDDER], through its duly authorized signatory**
.... (Signature)		.... (Signature)
NAME:		NAME:
DESIGNATION:		DESIGNATION:

ANNEXURE C - TECHNICAL FORMS

FORM C-1
BASIC INFORMATION FORM

Each firm or member of a JV must fill in this form

Basic Information Form (Company Profile)

All individual firms and each partner of a joint venture applying for prequalification are requested to complete the information in this form.

1.	Name of firm (legal): (In case of Joint Venture (JV), legal name of each member	
2.	Nature of Business: (Whether the firm is a Corporation, Partnership, Trust etc.) (In case of Consortium; whether the Lead Consortium Member is a Corporation, Partnership, Trust etc.)	
3.	Head Office address:	
4.	Telephone : Fax Number: E-mail address:	
5.	Place of Incorporation/Registration: Year of Incorporation/Registration:	
6.	Applicant's authorized representative: Telephone Fax numbers: E-mail address:	
7.	NATIONALITY OF OWNERS	
	Name:	Country:

FORM C-2

HISTORICAL NON-PERFORMANCE, BLACK LISTING AND PENDING LITIGATION

Non-Performing Contracts			
❑ **Contract non-performance did not occur** within the last **two (02)** years prior to the deadline for bid submission based on all information on fully settled disputes or litigation **(Affidavit to be provided)** ❑ **Contract non-performance during the stipulated period,**			
Year	**Outcome as Percent of Total Assets**	**Contract Identification**	**Total Contract Amount (current value, PKR)**
		Contract Identification: Name of Employer: Address of Employer: Matter in dispute:	

Black Listing
❑ **Bidder shall not be black listed by government/semi government/autonomous/private organizations (Affidavit to be provided)**

Failure to Sign Contract

Bid Security Declaration
❑ **Bidder shall not be under execution of a Bid–Securing Declaration (Affidavit to be provided)**

Conflict of Interest: Attach Affidavit

Pending Litigation			
❑ **No pending litigation** (A fully settled dispute or litigation is one that has been resolved in accordance with the Dispute Resolution Mechanism under the respective contract and where all appeal instances available to the Bidder have been exhausted) **(Affidavit to be provided)** ❑ **Pending litigation** (All pending litigation shall in total not represent more than **50%** of the Bidder's net worth and shall be treated as resolved against the Bidder)			
Year	**Outcome as Percent of Total Assets**	**Outcome as Percent of Total Assets**	**Total Contract Amount (PKR)**
		Contract Identification: Name of Employer: Address of Employer: Matter in dispute:	

FORM C-3   FINANCIAL SITUATION

Financial Data for Previous 3 Years
Information from Balance Sheet

	Year 1	Year 2	Year 3
Total Assets			
Total Liabilities			
Current Assets			
Current Liabilities			

Information from Income Statement

Total Revenues of Construction			
Profits Before Taxes			
Profits After Taxes			

❑ Attached are copies of financial statements (balance sheets including all related notes, and income statements) for the last three years, as indicated above, complying with the following conditions.
 ☐ All such documents reflect the financial situation of the Bidder or partner to a JV, and not sister or parent companies.
 ☐ Historic financial statements must be audited by a certified accountant.
 ☐ Historic financial statements must be complete, including all notes to the financial statements.
 ☐ Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).
 ☐ NTN certificate must be attached
 ☐ Tax return filed must be provided
 ☐ Foreign firms if participating in the bidding process should submit NTN Certificate of their country duly attested by Consulate of their country

FORM C-4
CURRENT CONTRACT COMMITMENTS / WORKS IN PROGRESS

Bidders and each member to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

	Current Contract Commitments				
No.	Name of Contract	Employer's Contact Address, Tel, Fax	Value of Outstanding Work [PKR]	Estimated Completion Date	Average Monthly Invoicing Over Last Six Months [PKR/month)]
1					
2					
3					
4					
5					

FORM C-5
  DETAILS OF PRJECTS FOR LAST 10 YEARS

(A)   For POS projects

Sr. No.	1	2	3	4	5
Name of Contractor:					
Country:					
Province & Location					
Name of Procuring Agency with Address, Tele, Fax.					
Nature of works and special features relevant to the contract for which applied:					
Contractor Role (Mention: Sole, Sub Contactor or Partner in a Joint Venture).					
Value of the total contract in Pak/Rs:					
Date of Award:					
Date of Completion:					

(B)   For Financial IT projects

Sr. No.	1	2	3	4	5
Name of Consultant:					
Country:					
Province & Location					
Name of Procuring Agency with Address, Tele, Fax.					
Nature of works and special features relevant to the contract for which applied:					
Consultant Role (Mention: Sole, Sub Consultant or Partner in a Joint Venture).					
Value of the total contract in Pak/Rs:					
Date of Award:					
Date of Completion:					

FORM C-6   LIST OF KEY PERSONNEL

Bidders should provide the names of suitably qualified personnel to meet the specified requirements stated in technical evaluation criteria.

Sr. No.	Title of Position	Name
1		
2		
3		

CURRICULUM VITAE (CV) FOR PROPOSED EXPERTS

1. Proposed Position: _____

2. Name of Expert _____

3. Name of Firm: _____

4. Current Residential address: _____
Telephone No: _____ **Fax No:** _____
E-Mail Address: _____

5. Date of Birth: _____ **Citizenship:** _____

6. Qualification: _____

7. Work Experience: Summarize professional experience in reverse chronological order.
Indicate particular technical and managerial experience relevant to the project.

From	To	Company/Project/Position/Relevant technical and management experience

Projects Completed during last 10 years

Sr. No.	1	2	3	4	5
Country:					
Province & Location					
Name of Procuring Agency with Address, Tele, Fax.					
Nature of works and special features relevant to the contract for which applied:					
Contractor Role (Mention: Sole, Sub Contactor or Partner in a Joint Venture).					
Value of the total contract in Pak/Rs:					
Date of Award:					
Date of Completion:					

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes my qualifications, my experience, and myself. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.

Signature of the Candidate:
Place:
Date:

FORM C-8 Methodology

(Please provide detailed methodology for the subject project)

NOTES FOR EXECUTION OF AFFIDAVIT

□   *The mode of execution of the Affidavit should be in accordance with the procedure, if any, laid down by the applicable law and the same should be under common seal affixed in accordance with the required procedure.*

□   *Also, wherever required, the Bidder (and in case of the Consortium, each member of the Consortium, wherever required) should submit for verification the extract of the charter documents and documents such as a resolution/power of attorney in favour of the person executing this Affidavit for the delegation of power hereunder on behalf of the Bidder.*

□   *This Affidavit shall be notarised with the Notary Public.*

□   *For an Affidavit executed and issued overseas, the document will also have to be legalised by the Pakistani Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. Please find below the form and substance of the Affidavit.*

<div align="center">

AFFIDAVIT

</div>

Date: _____

[●] [●]
[Address]

We, [*insert name of Bidder]* hereby represent and warrant that, as of the date of this letter [*name of Bidder/lead member of consortium/JV*], and each member of our consortium/JV (if applicable):

    a.   is not in bankruptcy or liquidation proceedings;

    b.   is not blacklisted by any governmental or non/governmental department/agency;

    c.   has not been convicted of, fraud, corruption, collusion or money laundering;

    d.   is not aware of any conflict of interest or potential conflict of interest arising from prior or existing contracts or relationships which could materially affect its capability to comply with the obligations under the Contract Agreement;

    e.   [is legally and financially autonomous and operates under commercial law][3];

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[3]Only r*elevant for the government owned legal enterprise or institution.

f.   [is no pending litigation which represents more than 50% of our net worth][4];

g.   [is not under any non-performance of a contract within last five years of the Proposal

Deadline][5]; and h.   [has not failed to sign a contract with any procuring authority following

award][6].

We have also attached proof of registration of each member, if applicable, from the relevant

statutory authority. Yours sincerely,

Signature of Authorized Signatory
Name and Title of Signatory:
Name of Firm:
Address:

This document contains 149 pages in all.

THE END