Warehousing Development and Regulatory Authority

Request for Proposal

Implementation and Support For Negotiable Warehouse Receipt System (NWRS)

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Introduction

About Warehouse Development & Regulatory Authority (WDRA)

In India, the idea of public warehousing took shape because of widespread rural indebtedness. The existing warehouse receipt in India does not serve as a safe negotiable instrument and the present Warehouse Receipt System does not enjoy the fiduciary trust of farmers and depositors and banks as it is feared that loss on account of fraud or mismanagement or insolvency will not be recoverable in absence of legal remedies. In order to remove the impediments in the negotiability of the warehouse receipt, the new Warehouse Receipt Law has been enacted under the Warehousing (Development and Regulation) Act 2007.

In order to regularize agricultural financing and increase the funds available to the farmers the Warehousing (Development and Regulation) Act, 2007 was made effective on 25th Oct 2010 and the Warehouse Development and Regulation Authority (WDRA) was set up on 26th Oct 2010. The central objective of the authority is to put in place formal regulations and guidelines around the use of Negotiable Warehouse Receipts (NWRs) in accordance with the provisions contained in the act.

The Act provided for the establishment of WDRA to exercise the powers conferred on and to perform the functions assigned to it under the act, rules and regulations for the development and regulation of warehouses, negotiability of warehouse receipts and promote orderly growth of the warehousing business. The authority has its headquarters in New Delhi. In subsequent phases, with the approval of the central government, the authority can establish offices at other places.

In accordance with the Warehousing (Development and Regulation) Act 2007, negotiable warehouse receipts can be issued only by warehouses registered with the WDRA.

Objectives of WDRA

The vision of the WDRA is centred on scientific storage of commodities, uplifting of the rural Indian farming community by enabling access to bank loans and finances against agricultural goods collateral stored in warehouses.

The objectives of the WDRA are to make provisions for the development and regulation of warehouses and negotiability of warehouse receipts which will ultimately result in:

- 1. Enabling farmers/depositors to seek loans easily from Banks
- 2. Enhanced fiduciary trust of banks in such negotiable warehouse receipts
- 3. Encouragement of scientific warehousing of goods.
- 4. Lower cost of financing by banks.
- 5. Shorter and more efficient supply chains.
- 6. Enhanced rewards for grading and quality.
- 7. Better price risk management by farmers.
- 8. Higher returns to farmers and better services (quality) to the consumers.
- 9. Avoidance of distress sale of agriculture produces by farmers during peak marketing season.

Scope of Work

The scope of the current RFP is to identify a system implementation partner for

i. Design, development and rollout of a web based IT system for WDRA for the management of the NWR lifecycle along with reporting and MIS functionalities

- ii. Supply and installation of hardware, software and system software to run the above application
- iii. Handholding support for the application for 120 days post go live of the system
- iv. Warranty and L3 support for 3 years post go live for the system developed

The detailed system requirements, qualification and selection criteria for vendors are provided in the subsequent sections of this document.

List of Abbreviations

Abbreviation	Detail
API	Application Programming Interface
BDS	Bid Data Sheet
BRD	Business Requirement Document
СВТ	Computer Based Training
CD	Compact Disc
СММ	Capability Maturity Model
СММІ	Capability Maturity Model Integration
CSS	Cascading Style Sheets
DFD	Data Flow Diagram
EDI	Electronic Data Interchange
E-Mail	Electronic Mail
ER	Entity Relationship
EWR	Electronic Warehouse Receipt
FAQ	Fair Average Quality
GS1	Global Standards 1
GUI	Graphical User Interface
HR	Human Relationship
HTML	Hypertext Markup Language
ID	Identification
IEC	International Electro technical Commission
INR	Indian Rupee
IPR	Intellectual Property Rights
ISO	International Organization for Standardization
IT	Information Technology
ITB	Instruction to Bidders
КҮС	Know Your Customer
LDAP	Lightweight Directory Access Protocol
MIS	Management Information System
NWR	Negotiable Warehouse Request
NWRS	Negotiable Warehouse Request System
ODF	Open Document Format
OEM	Original Equipment Manufacturer
OFF	Open Font Format
OLAP	On-Line Analytical Processing
OTLP	Online Transaction Processing
PBG	Personal Bank Guarantee

PC	Personal Computer
PDA	Personal Digital Assistant
PDS	Public Distribution System
RDBMS	Relational Database Management System
REQ	Requirement
RFP	Request For Proposal
RTI	Right to Information
SDLC	Software Development Lifecycle
SI	System Integrator
SLA	Service Level Agreement
SMS	Short Messaging Service
SOAP	Simple Object Access Protocol
SPC	Statistical Process Control
SQL	Structured Query Language
SRS	System Requirement Specification
TSR	Transaction Success Rate
UAT	User Acceptance Testing
WDRA	Warehousing Development and Regulatory Authority
WSDL	Web Service Definition Language
XHTML	Extensible Hypertext Markup Language
XML	Extensible Markup Language
XSL	Extensible Style sheet Language
XSLT	Extensible Style sheet Language Transformations

Section 1 - Instruction to Bidders

1. General

1.1. Scope of bid

The Warehousing Development and Regulation Authority (referred to as "WDRA" in these bidding documents), invites bids for the design, development and implementation of a web based Negotiable Warehouse Receipt System (NWRS) system with operation support for 3 years after Go-Live date as briefly described in the Bid Data Sheet (BDS) and specified in greater detail in these bidding documents.

1.2. Fraud and Corruption

- 1. The bidders must undertake to observe the highest standard of ethics during the procurement and execution of such contracts. In pursuit of this, WDRA:
 - a. 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.
 - b. Will declare a bidder ineligible, either indefinitely or for a stated period of time, to be awarded a WDRA contract if it at any time determines that the bidder has engaged in corrupt or fraudulent practices in competing for, or in executing, a WDRA contract.
- 2. By signing the bid form, the bidder represents that it either is the owner of the Intellectual Property Rights in the hardware, software or materials offered, or that it has proper authorization and/or license to offer them from the owner of such rights. For the purpose of this clause, Intellectual Property Rights shall be as defined in the conditions of the contract. Willful misrepresentation of these facts shall be considered a fraudulent practice.

1.3. Eligible bidders

- 1 Except as provided in this clause, the bidding process is open to all companies which are registered under the Companies Act 1956in India and which meets the defined pre-qualification criteria mentioned in the RFP.
- 2 Companies engaged by WDRA to provide consulting services for the preparation of the design, specifications, and other documents to be used for the procurement of the NWRS described in these bidding documents, will be excluded from bidding.
- 3 Bidders shall provide such evidence of their continued eligibility satisfactory to WDRA, as WDRA shall request

1.4. Eligible Goods and Services

- 1. For the purposes of these bidding documents, the NWRS means all unless explicitly mentioned in the RFP:
 - a. The required information technologies, including all information processing and communications-related hardware, software, supplies, and consumable items that the successful bidder is required to supply and install under the contract, plus all associated documentation, and all other materials and goods to be supplied, installed, integrated, and made operational (collectively called "the Goods" in some clauses of the ITB) and
 - b. The related software development, transportation, insurance, installation, customization, integration, commissioning, training, technical support, maintenance, repair, and other

services necessary for proper operation of the NWRS to be provided by the selected bidder and as specified in the contract.

1.5. Qualifications of the bidder

By submission of documentary evidence in its bid, the bidder must establish to WDRA's satisfaction that:

- 1. It has the financial, technical, and production capability necessary to perform the contract, meets the qualification criteria specified in BDS and has a successful performance history.
- 2. In the case of a bidder offering to supply those key goods and components of the NWRS identified in the BDS under the contract that the bidder did not itself manufacture or otherwise produce, the bidder has been duly authorized by the manufacturer or producer to supply those components in WDRA's country. (This will be accomplished by submission of Manufacturer's Authorization Forms, as indicated in the Bidding Forms.)
- 3. If there is a change in the status of the bidder which may lead to non-compliance to the above mentioned eligibility criteria, at any stage during the bid process till the award of the project, the bidder should immediately bring the same to the notice of WDRA. In this case WDRA may take appropriate steps which may also lead to rejection of bid.

1.6. Joint Venture and Sub contracting

Joint Venture/Consortium is allowed, however in a consortium, the number of consortium partners cannot be more than 3 (three). Consortium partners should have experience relevant to the project.

Sub-contracting/Sub-letting is not allowed in this project. The bidder shall not sub-contract/sub-let any of the work defined in this RFP, all the work has to be exclusively done by the bidder (consortium partners) only.

One of the consortium partners should be declared as prime bidder and the prime bidder will be primarily responsible for terms and conditions of the contract and for overall project. However, all the parties will be severally responsible as well.

1.7. Cost of bidding

The bidder shall bear all costs associated with the preparation and submission of its bid including cost of presentation for the purposes of clarification of the bid, if so desired by WDRA, and WDRA will in no case be responsible or liable for those costs regardless of the conduct or outcome of the tendering process.

1.8. Site Visit

The bidder may wish to visit and examine the site or sites of the NWRS and obtain for itself, at its own responsibility and risk, all information that may be necessary for preparing the bid and entering into the contract. The costs of visiting the site or sites shall be at the bidder's own expense.

1.9. Understanding of the Warehousing (Development and Regulation) Act 2007

The bidder should go through and get itself acquainted with the Warehousing (Development and Regulation) Act 2007, the rules and regulations made there under. They should in particular acquaint themselves with rules pertaining to accreditation and registration of warehouses and the issuance of warehouses.

The Act and the regulations, rules, orders and circulars thereof are available on the WDRA website. The bidder should ensure that the system design is in conformance with the Act, rules and regulations, as in force on the day of the system design.

2. Bidding documents

2.1. Content of bidding documents

- 1. The contents of the bidding documents are listed below and should be read in conjunction with any addenda to be issued in accordance with ITB clause 2.3 <u>Amendment of bidding documents</u> :
 - Section I Instructions to bidders (ITB)
 - Section II Bid Data Sheet (BDS)
 - Section III Technical Requirements (including Implementation Schedule)
 - Section IV Bid forms
 - Section V Format of contract
- 2. Bidders are expected to examine all instructions, forms, terms, specifications, and other information in the bidding documents. Failure to furnish all information required by the bidding documents or to submit a bid not fully responsive to the bidding documents in every respect will be at the bidder's risk and may result in the rejection of its bid.
- 3. The format of contract is for information purpose only, and the same could be changed at the time of the signing of the contract.

2.2. Clarification of bidding documents and Pre-bid Meeting

- A prospective bidder requiring any clarification of the bidding documents may notify WDRA in writing at WDRA's address and by one of the means indicated in the ITB. Similarly, if a bidder feels that any important provision in the documents will be unacceptable; such an issue should be raised at least 3 days before the pre bid meeting.
- 2. WDRA will organize, and bidders are welcome to attend, a pre-bid meeting at the time and place indicated in the BDS. The purpose of the meeting will be to clarify issues and answer questions on any matter that may be raised at this stage, with particular attention to issues related to the technical requirements. Bidders are requested to submit any questions in writing to reach WDRA not later than three days before the meeting. Any modification to the bidding documents which may become necessary as a result of the pre-bid meeting shall be made by WDRA exclusively by issuing an Addendum pursuant to ITB clause 2.3 <u>Amendment of bidding documents</u> and not through the minutes of the pre-bid meeting.
- 3. M/S KPMG (Registered) is assisting WDRA in the bidding and program management of the current project including ongoing program management of the implementation, including, but not limited to, review of all deliverables like User requirements documents, Software requirement specifications, High level design, Change management plan, User Acceptance Testing plan, Training plan, Roll out plan and Project progress reviews.

2.3. Amendment of bidding documents

1. At any time prior to the deadline for submission of bids, WDRA may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, amend the bidding documents. Later amendments on the same subject shall modify or replace earlier ones.

- 2. Amendments will be provided in the form of addenda to the bidding documents, which will be published at WDRA website. Addenda will be binding on bidders. It will be assumed that the amendments contained in such addenda will be taken into account by the bidder in its bid.
- 3. In order to afford prospective bidders reasonable time in which to take the amendment into account in preparing their bids, WDRA may, at its discretion, extend the deadline for the submission of bids, in which case, WDRA will notify all bidders through publishing the same on website.

3. Preparation of bids

3.1. Language of bid

The bid prepared by the bidder and all correspondence and documents related to the bid, exchanged by the bidder and WDRA shall be in English language.

3.2. Documents comprising the bid

- 1. The bid submitted by the bidder shall comprise of three envelopes kept in an outer envelope:
 - a. Envelop I: Prequalification bid
 - i. Prequalification bid forms duly completed and signed by a person or persons duly authorized to bind the bidder to the contract
 - ii. Documentary evidence to prove that the bidder meets the prequalification requirement mentioned in the BDS.
 - iii. Bid security furnished in accordance with ITB clause 3.6 Bid Security.
 - b. Envelop II: Technical bid
 - i. Technical bid forms duly completed and signed by a person or persons duly authorized to bind the bidder to the contract.
 - ii. Written confirmation authorizing the signatory of the bid to commit the bidder, in accordance with ITB clause 3.8 on <u>Format and Signing of bids</u>
 - iii. Copy of the RFP document, signed and company sealed on every page by authorized signatory as acceptance of the RFP
 - iv. Attachments to Technical bid:
 - <u>Attachment 1: Technical Capabilities</u>

Documentary evidence establishing to WDRA's satisfaction; and in accordance with ITB clause 1.5 <u>Qualifications of the bidder</u> that the bidder is qualified to perform the contract if its bid is accepted. The bidder shall fill all the prescribed forms and provide the documents necessary for technical evaluation.

<u>Attachment 2: Conformity of the NWRS to the bidding documents</u>

Documentary evidence establishing to WDRA's satisfaction, and in accordance with ITB clause <u>3.5</u>, that the Goods and Services components of the NWRS to be supplied, installed, and/or performed by the bidder conform to the bidding documents.

An undertaking will be required from the bidder stating the compliance with all the conditions of the contract and Technical criterion of the bidding Document is required, any deviation or assumptions will be subject to acceptability by WDRA.

<u>Attachment 3: Intellectual Property</u>
 A list of all software included in the bidder's bid, assigning each item to one of the software categories out of standard and custom software.

A list of all materials, as defined in conditions of contract, included in the bidder's bid.

- c. Envelop III: Commercial bid
 - i. All Price Schedules duly completed in accordance with ITB clauses 3.3 <u>Bid Prices</u>, 3.4 <u>Bid Currencies</u>, and 3.6 <u>Bid Security</u> and signed by a person or persons duly authorized to bind the bidder to the contract.

3.3. Bid Prices

- All goods and services proposed by the bidder to fulfill the requirements of the NWRS must be priced separately in the format of the form F2 and summarized in the corresponding cost summary tables in the same section. Prices must be quoted in accordance with the instructions provided in Bidding Forms for the various cost tables, in the manner specified below.
- 2. The price of items that the bidder has left blank in the cost tables provided in Bidding Forms shall be assumed to be included in the price of other items.
- 3. The prices for goods and components of the system are to be expressed and shall be quoted in the appropriate columns of the cost tables. The prices quoted shall be inclusive of all taxes. The bidder needs to mention tax breakups which they foresee, in their proposal.
- 4. The prices must include all costs including that incidental to the performance of the services, as incurred by the successful bidder, such as travel, subsistence, office support, communications, translation, printing of materials, etc.
- 5. Prices for recurrent costs to be incurred during the warranty period shall be quoted as service prices in accordance with this clause on the Recurrent Costs Form in detail, and on the Recurrent Costs Summary Form in currency totals. Recurrent costs are all-inclusive of the costs of necessary goods such as spare parts, software license renewals etc., needed for the continued and proper operation of the system and, if appropriate, of the bidder's own allowance for price increases.
- 6. Prices quoted by the bidder shall remain fixed during the bidder's performance of the contract and not be subject to increases on any account. Bids that are subject to price adjustment will be summarily rejected.
- 7. The bidder should quote service tax at the rates applicable at the time of bidding for the purpose of evaluation only. The payments to the vendor would be made in accordance with the applicable rate of service tax at the time of payment only.
- 8. Changes in applicable taxes for all other tax heads, except service tax, would be borne by the bidder.

3.4. Bid Currencies

All prices must be quoted in Indian Rupees.

3.5. Documents Establishing Conformity of the NWRS to the bidding documents

- 1 Pursuant to ITB clause 3.2, the bidder shall furnish, as part of its technical bid, documents establishing the conformity to the bidding documents of the NWRS that the bidder proposes to supply and install under the contract.
- 2 The documentary evidence of conformity of the NWRS to the bidding documents shall be in the form of written descriptions, literature, diagrams, certifications, and client references, including the following:
 - a. The bidder's technical bid, i.e., a detailed description of the bidder's proposed technical solution as well as hardware recommendations conforming in all material aspects with the

Technical Requirements section and other parts of these bidding documents, overall as well as in regard to the essential technical and performance characteristics of each component making up the proposed NWRS.

- b. An item-by-item explanation on WDRA's technical requirements, demonstrating the substantial responsiveness of the NWRS offered to those requirements. In demonstrating responsiveness, the explanation shall include explicit cross references to the relevant pages in the supporting materials included in the bid. Whenever a discrepancy arises between the item-by-item explanation and any catalogs, technical specifications, or other preprinted materials submitted with the bid, the item-by-item explanation shall prevail.
- c. A preliminary project plan describing, among other things, the methods by which the bidder will carry out its overall management and coordination responsibilities if awarded the contract, and the human and other resources the bidder proposes to use. The plan should include a detailed implementation schedule in bar chart form, showing the estimated duration, sequence, and interrelationship of all key activities needed to complete the contract.

The preliminary project plan must also include the details of the requirements mentioned in Solution Description and Resourcing Plan in Bidding Forms. In addition, the preliminary project plan should state the bidder's assessment of what it expects WDRA and any other party involved in the implementation of the NWRS to provide during implementation and how the bidder proposes to coordinate the activities of all involved parties.

- d. A written confirmation that the bidder accepts responsibility for the successful integration and inter-operability of all components of the NWRS as required by the bidding documents.
- 3 For purposes of the explanation to be furnished pursuant to this clause, the bidder shall note that references to brand names or model numbers or national or proprietary standards designated by WDRA in its Technical Requirements Section. These are intended to be descriptive and not restrictive.

3.6. Bid Security

- 1 The bidder shall furnish, as part of its bid, a bid security of the amount of **Rupees Five Lakhs** only.
- 2 The bidder shall furnish, as part of its bid, a bid security in the form of Bank Guarantee drawn in favor of "Warehousing Development and Regulatory Authority, New Delhi" payable at Delhi. The bid Security should be valid till 180 days post the deadline of bid submission.
- 3 The bid security shall be denominated in INR and shall be:
 - a. In the form of an irrevocable bank guarantee from a nationalized bank
 - b. In accordance with the form of bid security included in bidding documents
 - c. Payable promptly upon written demand by WDRA in case any of the conditions listed in this clause are invoked
 - d. Submitted in its original form; copies will not be accepted
- 4 Any bid not accompanied by an acceptable bid security shall be rejected by WDRA as non-responsive.
- 5 The bid securities of unsuccessful bidders will be returned as promptly as possible, but not later than fifteen (15) days after the expiration of the period of bid validity.
- 6 The bid security of the successful bidder will be returned when the bidder has signed the contract and furnished the required performance security.
- 7 The bid security may be forfeited:

- a. If a bidder:
 - i. Withdraws its bid during the period of bid validity specified by the bidder on the bid form
 - ii. Fails to accept WDRA's corrections of arithmetic errors in the bidder's bid (if any), in accordance with ITB clause 5.3 <u>Preliminary Examination of bids</u>.
- 8 In the case of the successful bidder, if the bidder fails to:
 - i. Sign the contract in accordance with ITB clause on signing of contract
 - ii. Furnish performance security in accordance with ITB clause on 3.6 Performance Security.

3.7. Period of Validity of bids

- 1. Bids shall remain valid, at a minimum, for **<u>180 days after the deadline date for bid submission</u> prescribed by WDRA. A bid valid for a shorter period shall be rejected by WDRA as non-responsive.**
- 2. In exceptional circumstances, prior to expiry of the bid validity period, WDRA may request that the bidders extend the period of validity for a specified additional period. The request and the responses to the request shall be made in writing. A bidder may refuse the request, in which case its bid will not be considered.

3.8. Format and Signing of bids

- 1 The original bid, consisting of the documents listed in ITB clause <u>3.2</u>, shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the bidder. The authorization must be in writing and included in the bid. The name and position held by each person signing the authorization must be typed or printed below the signature.
- 2 All pages of the bid and all accompanying documents shall be signed by the person or persons signing the bid.
- 3 The bid shall contain no interlineations, erasures, or overwriting, except to correct errors made by the bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

3.9. Bidder Authorization

- 1 The "bidder" shall mean the one who has signed the RFP Form. The bidder may be either the Principal Officer or his/her duly Authorized Representative, in which case he/she shall submit a power of attorney with the RFP response. All certificates and documents (including any clarifications sought and any subsequent correspondences) received hereby, shall, as far as possible, be furnished and signed by the representative.
- 2 It is further clarified that the individual signing the tender or other documents in connection with the RFP must certify whether he/she signs as : Constituted Attorney of the bidder, if it is a company OR The Principal Officer or his/her duly Authorized Representative of the bidder.
- 3 The authorization shall be indicated by power-of-attorney accompanying the bid.

4. Submission of bids

4.1. Sealing and Marking of bids

- 1 The bidder shall seal the prequalification, technical or commercial bids in separate envelopes, duly marking the envelopes as the type of bid. (i.e. Prequalification, Technical or Commercial)
- 2 The envelopes shall then be sealed in an outer envelope, bearing the name of the project, be addressed to WDRA at the address given in the BDS, and the statement "DO NOT OPEN

BEFORE [time and date]," to be completed with the time and date specified in the BDS for ITB clause 5.1.

3 If the outer envelope is not sealed and marked as required by this clause, WDRA will assume no responsibility for the bid's misplacement or premature opening. If the outer envelope discloses the bidder's identity, WDRA will not guarantee the anonymity of the bid submission, but this disclosure will not constitute grounds for bid rejection.

4.2. Deadline for Submission of bids

- 1 Bids must be received by WDRA at the address specified in the BDS for ITB clause <u>4.1</u> no later than the time and date stated in the BDS.
- 2 WDRA may, at its discretion, extend this deadline for submission of bids by amending the bidding documents in accordance with ITB clause 2.3 <u>Amendment of bidding documents</u>, in which case all rights and obligations of WDRA and bidders will thereafter be subject to the deadline as extended.

4.3. Late bids

Any bid received by WDRA after the bid submission deadline will be summarily rejected.

4.4. Modification of bids

Modification of bids post submission is not allowed.

5. Bid Opening and Evaluation

5.1. Opening of bids by WDRA

- 1 WDRA will open the outer envelope and the prequalification bids, in the presence of bidders' representatives who choose to attend, at the time, on the date and at the place specified in the BDS. Bidders' representatives shall sign the attendance sheet as proof of their attendance.
- 2 The date and time of declaration of the results of prequalification bids will be communicated to all the bidders who have submitted the bids. The technical bids of only those bidders whose prequalification bids were found to be fully responsive and who meet the prequalification criteria will be opened.
- 3 The date and time of declaration of the results of technical bids and time of opening of commercial bids will be communicated to all the qualified bidders who had submitted the bids. The commercial bids of only those bidders whose technical bids were found to be fully responsive and who scored the maximum marks for technical qualification, as mentioned in the BDS will be opened.
- 4 WDRA will open the commercial bids, in the presence of bidders' representatives who choose to attend, at the time, on the date and at the place communicated by WDRA. Bidders' representatives shall sign a register as proof of their attendance.

5.2. Clarification of bids

During the bid evaluation, WDRA 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 price or substance of the bid shall be sought, offered, or permitted. WDRA also reserves the right to ask the bidder to arrange for a site visit at a location of a customer; for which he has submitted the credentials.

5.3. Preliminary Examination of bids

1 WDRA will examine the bids to determine whether they are complete, whether required bid security have been furnished, the documents have been properly signed, and the bids are generally in order.

WDRA may waive any minor infirmity, nonconformity, or irregularity in a bid that does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any bidder.

2 Prior to the detailed evaluation of every type of bid (prequalification, technical and commercial), WDRA will determine whether each bid is of acceptable quality, is complete, and is fully responsive to the bidding documents. For purposes of this determination, a fully responsive bid is one that conforms to all the terms, conditions, and specifications of the bidding documents without material deviations, exceptions, objections, conditionality, or reservations.

A material deviation, exception, objection, conditionality, or reservation is one:

- a. That limits in any substantial way the scope, quality, or performance of the NWRS
- b. That limits, in any substantial way that is inconsistent with the bidding documents, WDRA's rights or the successful bidder's obligations under the contract
- c. The acceptance of which would unfairly affect the competitive position of other bidders who have submitted fully responsive bids.
- 3 If a bid is not fully responsive, it will be rejected by WDRA and may not subsequently be made responsive by the bidder by correction of the nonconformity. WDRA's determination of bid responsiveness will be based on the contents of the bid itself.

5.4. Conversion to Single Currency

All price bids are required to be submitted in Indian Rupees only

5.5. Evaluation and Comparison of bids

- 1 WDRA will evaluate and compare each of the three types of bids that have been determined to be fully responsive, pursuant to ITB clause <u>5.3</u>.
- 2 First the prequalification bid will be evaluated in detail for requisite information, the presence or absence of requisite powers of attorney, bid security, tender fees and any other such details as WDRA may consider appropriate. Only those bidders whose prequalification bids have been found to be fully responsive and meeting prequalification criteria will be considered for technical evaluation.
- 3 The technical bids of the bidders who have been found responsive in their pre qualification bids would only be opened.
- 4 To be technically responsive, the bidders must have submitted bids:
 - a. For which detailed bid evaluation using the same standards for compliance determination as listed in ITB clauses <u>5.3</u> confirms that the bids technically responsive, and include the hardware, software, related equipment, products, materials, and other goods and services components of the NWRS in fully the full required quantities for the entire NWRS.
 - b. That offer information technologies (hardware, application software and web application development platform) that are proven to perform up to the standards promised in the bid by having successfully passed the performance, benchmark, and/or functionality tests WDRA may require as described in technical evaluation criteria in BDS.

- c. That demonstrates experience and capability of the proposed team in similar projects and technologies and relevant certifications as per the minimum qualification requirements from different team roles provided in BDS.
- 5 The bids of the technically qualified bidders only will be opened for commercial evaluation. <u>The</u> <u>bidder should score at least 70 marks in the technical evaluation to be technically</u> <u>qualified.</u>
- 6 WDRA's evaluation of the commercial bid will be made on the basis of prices quoted in accordance with ITB clause 3.3 <u>Bid Prices</u>.
- 7 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.
- 8 If there is a discrepancy between words and figures, the amount in words will prevail. If a bidder does not accept the correction of errors, its bid will be rejected and its bid security may be forfeited.
- 9 The commercial bids will be evaluated based on cost quoted in "Grand Total" column of Form F2 in Bidding Forms. WDRA reserves the right to ask the bidders to give the detailed breakup of the cost quoted, which will be considered during commercial evaluation.
- 10 <u>The lowest evaluated bid i.e. the bid quoting the lowest amount in "Grand Total" column</u> of Form F2 in Bidding Forms section amongst the technically qualified bids is deemed the <u>successful bidder.</u>

5.6. Contacting WDRA

- 1 From the time of bid opening to the time of award of contract, if any bidder wishes to contact WDRA on any matter related to the bid, it should do so in writing.
- 2 If a bidder tries to directly influence WDRA or otherwise interfere in the bid evaluation process and the award of contract decision, its bid may be rejected.

6. Award of contract

6.1. Award Criteria

Subject to ITB clause <u>6.4</u>, WDRA will award the contract to the bidder as determined in ITB clause 5.5.

6.2. No changes in quantities at time of award

No variations will be allowed at the time of award of contract to increase or decrease, any of the following from that originally specified in the Technical Requirements section:

- 1. Quantity of individual hardware, software, related equipment, materials, products, and other goods components of the NWRS
- 2. Quantity of installation or other services to be performed

6.3. WDRA's Right to accept or reject any or all bids

WDRA reserves the right to accept or reject any bid or to annul the bidding process and reject all bids at any time prior to award of contract, without assigning and reason or incurring any liability to the bidders.

6.4. Intimation of Award and signing of contract

- 1. Prior to the expiration of the period of bid validity, WDRA will intimate the successful bidder in writing by registered letter, or by electronic means to be subsequently confirmed in writing by registered letter, that its bid has been accepted.
- 2. The intimation of award will constitute the formation of the contract.
- 3. As soon as practically possible, but no more than ten (10) days following receipt of the intimation of award, the successful bidder shall submit the performance security (as given in ITB clause 6.5), sign and date the form of contract and return it to WDRA. In case the form of contract and performance security is not submitted, the bid security may be forfeited and the project can be awarded to the next lowest bidder.
- 4. Upon the successful bidder's furnishing of the signed form of contract and the performance security pursuant to ITB clause 6.5 <u>Performance Security</u>, WDRA will promptly notify each unsuccessful bidder and will discharge its bid security, pursuant to ITB clause <u>3.6</u>.

6.5. Performance Security

- The Successful bidder shall, within ten (10) days of the intimation of award, provide a security for the due performance of the contract in Indian Rupees (INR), for an amount equal to 10 % of the Total Price quoted by the successful bidder for Supply and Installation of NWRS in price schedule form F2.
- 2. The security shall be in the form of a Performance Bank Guarantee (PBG), in the form provided in the Bidding Forms section of the bidding documents. (Form T 11). The guarantee shall be valid till the end of three months after the go live of NWRS.
- 3. As soon as practically possible, but no more than ten (10) days of the issuance of Go Live certificate, the successful bidder shall provide a fresh PBG for the due performance of the contract in Indian Rupees (INR), for an amount equal to 10% of the Total of 3 years of Annual Recurrent Cost in form 4.2. The bank guarantee should be valid for at least 36 months from the date of issue.
- 4. The first PBG shall be returned to the successful bidder no later than thirty (30) days after it submit the second PBG for the support period.
- 5. The PBG may be discharged/ returned by WDRA upon being satisfied that there has been due performance of the obligations of the bidder under the contract. However, no interest shall be payable on the PBG.
- 6. In the event of the bidder being unable to service the contract for whatever reason, WDRA would invoke the PBG. Notwithstanding and without prejudice to any rights whatsoever of WDRA under the contract in the matter, the proceeds of the PBG shall be payable to WDRA as compensation for any loss resulting from the bidder's failure to complete its obligations under the contract. WDRA shall notify the bidder in writing of the exercise of its right to receive such compensation within 14 days, indicating the contractual obligation(s) for which the bidder is in default.
- 7. WDRA shall also be entitled to make recoveries from the bidder's bills, PBG, or from any other amount due to him, the equivalent value of any payment made to him due to inadvertence, error, collusion, misconstruction or misstatement.

6.6. Arbitrator

Any dispute or difference arising out of or relating to this project would be resolved through joint discussions of the representatives of the parties. However, if the disputes are not resolved by joint

discussions, then the matter will be referred for arbitration to a sole arbitration nominated and appointed by the WDRA. The arbitrator's decision will be binding and final, arbitration proceedings will be held in Delhi only.

Section 2 - Bid Data Sheet

The following specific information relating to the System to be procured and the procurement procedures that will be used shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions in the Bid Data Sheet (BDS) shall prevail over those in the ITB.

1. Qualification Requirements

Clause	Details				
ITB 1.1	Name of Purchaser: WDRA Description of the System for which bids are invited: Design, Development, Testing, Implementation, Training and Technical support of the Negotiable Warehouse Receipt System (NWRS) including the Supply, Installation, Configuration and Maintenance of servers with 3 years of technical and operational support post NWRS Go Live date.				
	In case of	idders either singly or as a consortium together shall meet of consortium each member should be a registered comp 10 Crore for last 3 years. Criteria Bidder should be a company registered under Companies Act 1956 that has been in operation for at least 5 years.		Derience with minimum turnover of Criteria to be met by Prime Bidder and all Consortium Partners	
	2	Bidder's Annual sales turnover for each of the previous 3 financial years (2009-10, 2010-11, and 2011-12) should be at least 150 Cr INR out of which at least Rs. 50 Crore must be exclusively from software development for each of the years.	 Copy of the audited Profit & Loss Statement Copy of the letter from a Chartered Accountant regarding the turnover 	Prime Bidder	
ITB 1.5	3	Bidder must be a profit making company with net worth of Rs. 50 Crores in each of the last three financial years (2009-10, 2010-11, and 2011-12).	 Copy of the audited Profit & Loss Statement Copy of the letter from a Chartered Accountant regarding the turnover 	Prime Bidder	
	4	 Bidder should have executed at least following in Government / Public Sector clients in India in the last 5 years: Two IT/Software Design/ Development/ Implementation project of worth 1.5 Cr INR Or Four IT/Software Design/ Development/ Implementation project of worth 1 Cr INR 	 Copy of the following documents: Purchase Order or Work Order Agreement signed with the client Letters from the client certifying that the bidder has successfully completed the work in said project with relevant information on dates 	Prime Bidder or proposed Consortium Partners	

5	Bidder must in the last 2 years have successfully provided at least one year running L2/L3 support on at least 2 prior projects as on 31 st March 2012.	 Copy of the following documents: Purchase Order or Work Order Agreement signed with the client Letters from the client certifying that the bidder has successfully completed the work in said project with relevant information on date 	Prime Bidder or proposed Consortium Partners
6	Bidder must have an overall IT staff strength (staff performing duties of IT/software design/ development/implementation and/or procurement, install, test, configuration of hardware and network equipment's) of at least 100 personnel as on 31 st March, 2012	Self-Certification regarding the same on a Company letterhead signed by the Head of HR, along with company seal.	Prime Bidder or proposed Consortium Partners
7	Bidder and each of its consortium members must have filed service tax and income tax returns for the last three financial years. Bidder and each of its consortium members must not	Proof of submission or receipt from the income tax/service tax authorities for the last three financial years (2009-10, 2010-11, and 2011-12) Affidavit on a non judicial stamp paper of Rs	Prime Bidder and all Consortium Partners Prime Bidder and all Consortium
	have been blacklisted by any government organization at the time of submission of the RFP.	100 as per form on Conviction Undertaking in Bidding Forms	Partners
9	Bidder must have a minimum ISO 9001:2008 or SEI CMMi Level 3 certificate for its software development centers in India. Also, the bidder shall have ISO 27001 certificate.	Copy of the certifications (The certifications needs to be valid as on the date of bid submission)	Prime Bidder

2. Bidding Documents

Clause	Details	
ITB 2.2	Purchaser's / duly authorized address:	
	Director F&A, The Warehousing Development and Regulatory Authority,	
	'Warehousing Bhawan' 4/1, Siri Institutional Area,	
	August Kranti Marg, Hauz Khas, New Delhi – 110 016	
ITB 2.2	Dates, times, and places for the pre-bid meeting: January 15, 2013, 2 PM at WDRA Office Conference Room	

3. Submission of Bids

Clause	Details	
ITB 4.1	The address for bid submission is:	
	The Warehousing Development and Regulatory Authority,	
	'Warehousing Bhawan' 4/1, Siri Institutional Area,	
	August Kranti Marg, Hauz Khas, New Delhi – 110 016	
	Deadline for bid submission is: 4 th February 2013, 4 PM	

4. Bid Opening and Evaluation

Clause	Details
ITB 5.1	Time, date, and place for bid opening are: 5 th February 2013, 11 AM

5. Important Dates

S. No.	Activity	Date		
1	Last date of receiving queries, till 5 PM	11 th January 2013		
2	Pre- bid conference at 2 PM	15 th January 2013		
3	WDRA's response to queries	21 st January 2013		
4	Last date for submission of bids, till 4 PM	4 th February 2013		
5	Opening of Prequalification bids, at 11 PM	5 th February 2013		
6	Results of evaluation of technical bids	To be informed to the qualified bidder		
7	Opening of commercial bids	To be informed to the qualified bidder		

6. Technical Evaluation Criteria

Clause			Details			
ITB 5.5	The t	echnical evaluation categories and the feature		d weights for ca	itegories and feat	
	S.	Criteria	Minimum Supporting Document	Criteria to	Equivalent	Scoring Criteria
	No.			be met by	Marks	
	1	Experience of Bidder			40	
	1.1	Bidder must have exposure to IT system	Copy of the following documents:	Prime	10	1 Project – 5 marks
		development and integration projects in	• Purchase Order or Work Order	Bidder or		2 Projects -7 marks
		the public warehousing sector/	• Agreement signed with the client	proposed		3 or more projects –
		warehousing related to PDS, Food and	- Agreement signed with the client	Consortium		10 marks

RFP for implementation and support of NWRS for WDRA

	Agriculture and in the last 3 years must have successfully completed at least one project of order value not less than Rs. 1.5 Crore in these sectors.	 Letters from the client certifying that the bidder has successfully completed the work in said project with relevant information on dates Form T1 	partner		
1.2	Bidder should have experience of successfully completed at least 1 project (including hardware, software and services) in India for Core Banking or Banking Correspondents or Insurance Solution with over 100 locations out of which at least one project must be of the order value not less than Rs. 1.5 Crore.	 Copy of the following documents: Purchase Order or Work Order Agreement signed with the client Letters from the client certifying that the bidder has successfully completed the work in said project with relevant information on dates Form T1 	Prime Bidder or proposed Consortium partner	10	1 Project – 5 marks 2 Projects -7 marks 3 or more projects – 10 marks
1.3	Bidder must have successfully completed at least 3 projects IT/software design/procurement/ development/implementation with over 100 rural/semi urban locations(including hardware, software and services) with a total value not less than Rs. 1.5 Crore	 Copy of the following documents: Purchase Order or Work Order Agreement signed with the client Letters from the client certifying that the bidder has successfully completed the work in said project with relevant information on dates Form T1 	Prime Bidder or proposed Consortium partner	7	3 Projects – 4 marks 4-5 Projects -5 marks 6 or more projects – 7 marks
1.4	Bidder should have successfully completed at least 3 projects over the last 3 years involving web-based application design and development, procurement, implementation, operation and maintenance, out of which at least one project must be of the order value not less than Rs. 1.5 Crore for any department / agency of government	 Copy of the following documents: Purchase Order or Work Order Agreement signed with the client Letters from the client certifying that the bidder has successfully completed the work in said project with relevant information on dates Form T1 	Prime Bidder or proposed Consortium partner	7	3 Projects – 4 marks 4-5 Projects -5 marks 6 or more projects – 7 marks
1.5	Bidder must have successfully completed at least 1 projects in IT support with over 100 rural/semi urban locations	 Copy of the following documents: Purchase Order or Work Order Agreement signed with the client Letters from the client certifying 	Prime Bidder or proposed Consortium partner	6	1 Project – 4 marks 2 Projects -5 marks 3 or more projects – 6 marks

		that the bidder has successfully completed the work in said project with relevant information on datesForm T1		
2	Proposed Solution		25	
2.1	The proposed server hardware/operating system platform must be implemented at least 3 projects in Government sector in India (Central/State governments and PSU/Autonomous bodies)	 Copy of the following documents: Purchase Order or Work Order Agreement signed with the client Letters from the client certifying that the bidder has successfully completed the work in said project with relevant information on dates Form T 12 	10	3 implementations – marks 4-5 implementations 8 marks 6 or more implementations – 1 marks
2.2	The proposed application software(s)/web application platform must be implemented at least 3 projects in Government sector in India (Central/State governments and PSU/Autonomous bodies)	 Copy of the following documents: Purchase Order or Work Order Agreement signed with the client Letters from the client certifying that the bidder has successfully completed the work in said project with relevant information on dates Form T13 	15	3 implementations – marks 4-5 implementations 12 marks 6 or more implementations – 1 marks
2,3	The proposed database platform must be implemented in Government sector in at least 3 projects in Government Sector in India (Central/State governments and PSU/Autonomous bodies)	 Copy of the following documents: Purchase Order or Work Order Agreement signed with the client Letters from the client certifying that the bidder has successfully completed the work in said project with relevant information on dates Form T13 		
2,4	Any other proposed software platform must be implemented at least 3 projects in Government sector in India (Central/ State governments and PSU/Autonomous bodies)	 Copy of the following documents: Purchase Order or Work Order Agreement signed with the client Letters from the client certifying that the bidder has successfully 		

RFP for implementation and support of NWRS for WDRA

		completed the work in said project with relevant information on dates	
		• Form T13	
3	Strength of Proposed Team		25
3.1	Project Manager should have:	Copy of the following documents:	5
	At least 10 years of IT experiencePMP or equivalent certification	 Copy of the certifications (The certifications needs to be valid as 	
	 Experience of at least 3 System integration projects including software, services, hardware and rollout for projects, preferably in government sector 	on the date of bid submission)Detailed resume in Form T3	
3.2	Functional Expert – Warehouse sector should have:	Copy of the following documents: • Copy of the certifications (The	4
	 At least 8 years of experience Experience of at least 1 System integration, software development, business process reengineering projects in warehousing and warehousing related to PDS sector 	certifications needs to be valid as on the date of bid submission)Detailed resume in Form T3	
3.3	 Functional Expert – Financial/Banking sector At least 8 years of experience Experience of at least 1 System integration, software development, business process reengineering projects in core banking or banking correspondent model 	 Copy of the following documents: Copy of the certifications (The certifications needs to be valid as on the date of bid submission) Detailed resume in Form T3 	4
3.4	 Solution architect ITIL certified professional with at least 8 years of experience Experience with solution design for web based solution targeted at rural/semi urban sector Experience of at least 1 project rollout on multi platform access including offline sync and mobile applications 	 Copy of the following documents: Copy of the certifications (The certifications needs to be valid as on the date of bid submission) Detailed resume in Form T3 	3
3.5	Hardware and data center expert	Copy of the following documents:	3

Approach and Methodology		10	
ISO27001 lead implementer or CISSP certified professional or Certified Ethical Hacker	on the date of bid submission)Detailed resume in Form T3		
 Total experience of over 5 years Should be a ISO27001 lead auditor or 	 Copy of the certifications (The certifications needs to be valid as 		
Information Security Expert	Copy of the following documents:	3	
 At least 5 years of experience in application testing 	Detailed resume in Form T3		
 Experience of defining test plan and rollout strategy for web based applications 	 Copy of the certifications (The certifications needs to be valid as on the date of bid submission) 		
Application Testing Expert	Copy of the following documents:	3	
 Experience of at least 2 full cycle collocation projects at a third party hosting service provider 	Detailed resume in Form T3		
, , ,	on the date of bid submission)		
hardware sizing and commissioning	 Copy of the certifications (The certifications needs to be valid as 		
	 Experience of 3 system integration projects for IT sector Experience of at least 2 full cycle collocation projects at a third party hosting service provider Application Testing Expert Experience of defining test plan and rollout strategy for web based applications At least 5 years of experience in application testing Information Security Expert Total experience of over 5 years Should be a ISO27001 lead auditor or ISO27001 lead implementer or CISSP certified professional or Certified Ethical Hacker 	 hardware sizing and commissioning Experience of 3 system integration projects for IT sector Experience of at least 2 full cycle collocation projects at a third party hosting service provider Application Testing Expert Experience of defining test plan and rollout strategy for web based applications At least 5 years of experience in application testing Information Security Expert Total experience of over 5 years Should be a ISO27001 lead auditor or ISO27001 lead implementer or CISSP certified professional or Certified Ethical Hacker certifications needs to be valid as on the date of bid submission) Detailed resume in Form T3 Copy of the certifications (The certifications needs to be valid as on the date of bid submission) Detailed resume in Form T3 	hardware sizing and commissioningcertifications needs to be valid as on the date of bid submission)Experience of 3 system integration projects for IT sectorDetailed resume in Form T3Experience of at least 2 full cycle collocation projects at a third party hosting service providerDetailed resume in Form T3Application Testing ExpertCopy of the following documents:3• Experience of defining test plan and rollout strategy for web based applications• Copy of the certifications (The certifications needs to be valid as on the date of bid submission)• Detailed resume in Form T3• At least 5 years of experience in application testing• Detailed resume in Form T33• Total experience of over 5 years • Should be a ISO27001 lead auditor or ISO27001 lead implementer or CISSP certified professional or Certified Ethical HackerCopy of the certifications (The certifications needs to be valid as on the date of bid submission)3• Detailed resume in Form T3Copy of the certifications (The certifications needs to be valid as on the date of bid submission)3

7. Payment Schedule

1. **Payment for supply and installation cost:** Purchaser will be making payments to the selected vendor based on the milestone achieved by the vendor as given below in the table:

Milestone	% of Total supply and installation cost
Advance (On bank guarantee of equal amount)	10%
Approval of system design by WDRA	20%
Installation of hardware and application at data center	20%
Completion of user acceptance testing	20%
Completion of Go-Live phase	10%
Completion of handholding phase	20%

2. Payment for support cost:

a. Payment towards L3 support cost will be paid quarterly starting from the end of 3 months post Go live.

b. Payments for annual maintenance charges for hardware and software and applications will be paid in advance annually in the same month post completion of Go-Live Phase. The payment for the hardware and software AMC would be paid to the selected bidder only.

Section 3 - Technical Requirements

1. Need for NWRS

Currently about 300 warehouses are registered to issue the NWR, and these numbers are expected to go up in the future. The projected growth, as also the mandate to establish a NWR ecosystem based on trust and real time availability of information to all stakeholders, it is imperative to have an IT system to manage the lifecycle of NWR. This system would further allow the various stakeholders to extract various reports out in a timely manner to allow a NWR ecosystem to flourish.

The introduction of an online NWR System will help farmers and depositors avail better credit facilities and avoid distress sale, and also safeguard financial institutions by mitigating risks inherent in credit extension to farmer and depositors. An online NWR system would limit the cases of frauds on endorsements and pledging of NWR as well as disallow the issuance of multiple duplicate receipts.

The online system would contain all information regarding the underlying assets in the NWR and clearly establish the authenticity of the NWR at all times. The system when implemented would allow real time information that any NWR issued is authentic; data contained in it is genuine, complete and accurate without any possibility of fraud or misappropriation.

The proposed system, backed by the legal provisions of the W(D&R) Act, 2007, would in essence make each registered warehouse a collateral manager (having responsibility for the quality assaying, scientific storage, and prevention of losses) – thus making the NWR issued by such warehouses a commercial paper of trust among the banking and financial community of the country.

The key objective of this project is to provide a robust, scalable and comprehensive platform for managing the NWR lifecycle – from issuance to disposal as well as provide a MIS reporting solution for the regulatory authority to monitor the NWR Program. The system should be able to provide alternate means of connectivity at far flung locations with limited connectivity/user IT fluency.

The design of the platform would address key concerns such as Confidentiality, Integrity and Availability.

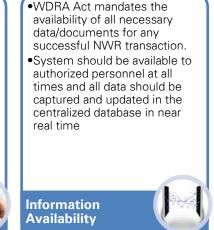
- Critical transactional data should be confidential at all points in the life cycle of the NWR with only right people having the right access to data.
- •Identification of all information owners and possible instances of compromise of confidentiality is important.
- Application should be intelligent with built in security features, and control access rights in accordance with actual roles and responsibilities

Confidentiality

 Integrity of data in the NWR issued is important as WDRA needs ensure that any NWR issued is authentic, data contained in it is genuine, complete and accurate with out any possibility of fraud or misappropriation.

•Examples of such checks include unique identifier for each NWR, checks for duplicity of NWRs, check for nonendorsement of pledged NWRs etc.

Data Integrity



1.1. Key Project Stakeholders

The system of NWR issuance and transactions is a multi-level process with involvement of key stakeholders and process owners at each stage of the NWR lifecycle as shown below:

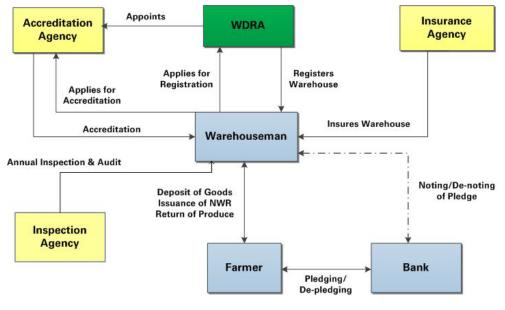


Figure 1 Key Stakeholders

The following table lists all the key stakeholders and also details their roles and responsibilities.

Stakeholder Name	Roles and Responsibilities
WDRA	 Empanelment/ Renewal of Accreditation Agencies Registration/Renewal of Warehouses Tracking of all NWR transactions Grievance Redress Addition of new commodities and associated grading for quality
Accreditation Agency	 Inspection of warehouses for both issuance and renewal of accreditation Issuance of Accreditation certificates to warehouses Conduct training programs for NWR Program
Inspection Agency	 Periodic audit of registered warehouses and checking of physical inventory Inspection of all aspects of storage and scientific handling of produce Examine insurance claims, litigations, incidences of non-delivery, auction etc.
Warehouseman	 Storage of notified commodities of depositor Issuance of NWR/ Duplicate NWR Maintenance of records at warehouse level and updating of centralized data repository. Oversight on pledging/endorsement processes Facilitate in transfer and endorsement Notifying and De-notifying the pledge Updates of degradation, spoilage of deposits based on the regular inspections Auction of produce in cases of default/damage of stocks

	 Total/Partial release of commodities to farmer and depositor Adhere to WDRA registration standards 	
 Request for lien note to warehouseman Pledging of NWR Verification of NWR details at warehouse level Sanction of loan to farmer and depositor Return of NWR to farmer and depositor after loan reference 		
Farmers and Depositors	 Deposit produce at warehouse and collect issued NWR Pledge NWR at bank Endorsement Repay loan to bank and collect pledged NWR to be taken to warehouseman for de-noting Reclaim total/partial produce from warehouse against cancellation of issued NWR Calculation and payment of storage charges for partial and complete delivery 	
Insurance Agency	• Insure the warehouse against threats of fire, flood, theft, burglary, misappropriation, riots, strikes and terrorism etc.	
Commodity Exchanges	Trading of NWR	

2. NWR Solution Requirements

2.1. General Solution Requirements

NWRS should be multi-tier, web-based solution (having web-based front-end for users and as well as for system administrative functions for changing business rules or managing access policy) having centralized database, web and application server. The details of the multi-tier application have been suggested in subsequent sections.

- The intended user base for the system is extremely diverse. The users include warehousemen, bank officials, WDRA officials and personnel from accreditation/inspection agencies, in addition to the depositors and farmers. Level of technical competence and availability of technical infrastructure varies drastically from WDRA and accreditation agencies based in urban areas to warehouses and bank branches located in rural/remote areas.
 - a. The system should have "pull down menus", "command buttons", "short-cut keys", "and pop-up windows" and use other navigation aids wherever possible to make the solution / system efficient and easy to use
 - b. The system should provide context driven help wherever input is required from the user and it should be customizable.
 - c. The system should provide for online help, general information and instructions
 - d. The system should use standard drop-down lists wherever possible for standard values to be selected by the user
- 2. The information exchanges between various entities during various NWR transactions are of very dynamic nature that the database has to be updated online real-time based on internet connectivity. However, due to frequent connectivity issues in remote areas, it is essential that the solution provides critical functionality in an offline mode of operation as well. NWR transactions should not be affected and data security should be maintained. Lastly, the solution must provide for auto-sync with the centralized database as soon as connectivity is established.
- 3. Another critical consideration in the effectiveness of the proposed solution is use of vernacular support. Presently the application should support Hindi and English, with no font download

dependency. However, for future considerations, the application must allow future support for data to be captured and presented in regional languages and language barriers should not have a bearing on system functionality. This will ensure that the solution has the intended outreach at the grass root level. However, the data would be stored in single Unicode language. The system should have multilingual interface, so that based on selection the script of the portal can be changed.

- 4. The System should enforce secure login as per the login process, where users will have to authenticate his/her username, password to access the home page. The system, on successful login, should display the home page of the portal. The page should be customized by user type/admin with links to various services allowed. The system design therefore would also need to define the levels of user access to different user groups. The solution would need to define access policies where in different type of users would be given access to different modules and related information, for example:
 - a. Updating NWR transaction information like issuance, pledging, endorsement etc. in the database will be restricted only to the warehousemen and the bank officials.
 - b. WDRA officials and personnel from the accreditation agency will need read and write for updating the registration and accreditation details of the warehouses.
 - c. Read only rights and database query access should also be available to all stakeholders.
- 5. End users of the system will have to given access to the system through multiple platforms including desktop, PDA. Thus the system must allow for multiple platforms and must be compatible with different browsers. The solution should be compatible with all leading web browsers in India, especially with Microsoft Internet Explorer 6.0 or above and Mozilla Firefox 2 and above, Chrome etc.
 - a. The application so developed shall also be mobile compatible. Stakeholders should be able to use mobile to transact.
 - b. The Graphical User Interface (GUI) of the application should be compatible (viewable) on various devices like PCs, handheld PDAs, tablets, smart phones, mobile gazettes etc.
 - c. The NWR should be securely printable from a PDA handheld device or a regular PC printer.
- 6. All components of the NWR system must support scalability to provide continuous growth to meet the requirements of the NWR environment. A scalable system is one that can handle increasing numbers of requests without adversely affecting the response time and throughput of the system. The system should support interoperable, portable, and scalable applications, services, interfaces, data formats and protocols.
- 7. The solution should work on the latest version of the proposed RDBMS based database systems. The system database should be at least ODBC compliant.
- 8. The system should enable signing off documents using digital signatures by the various stakeholders.
- 9. Internal WDRA users shall be connected over WAN and shall access the NWRS over the Intranet. Outside WAN, these users shall be able to access the system by connecting through the web. A secure tunnel shall be established based on username and password to enable Internal Users to access the internal web server hosting the application.
- 10. External users shall be able to access non-restricted areas of the application through Internet. The public web server and the internal firewall (which is a part of the public DMZ) shall be configured to render only those application pages that can be accessed publicly.

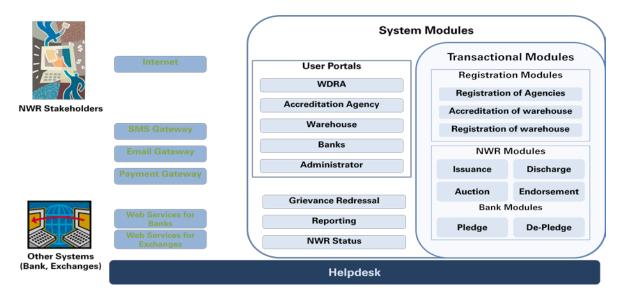
2.2. Functional Requirements

The proposed solution would consist of the following main modules that would take care of various processes described in the above section:

Module	Processes	Users
	 Empanelment of accreditation agencies Renewal of empanelment of accreditation agencies Suspension/Cancellation/Revocation of 	
Accreditation and Registration of Warehouses	 empanelment Accreditation of warehouses Suspension/Cancellation of accreditation certificate of warehouses Renewal of accreditation certificate Registration of warehouses Renewal of registration of warehouses Suspension/Cancellation of registration of warehouses 	 WDRA Accreditation Agency
Negotiable Warehouse Receipts Transactions	 Issue of NWR Issue of Duplicate NWR Cancellation of receipt or partial withdrawal of commodities Auction of produce by warehouseman Pledging of NWR Repayment of Ioan and release of pledge on receipt Endorsing of NWR Capture details of weighbridge, gate pass and gate register entries 	1. WDRA 2. Warehouseman 3. Banks
Grievance Redressal	Grievance Redressal should be available on a portal where in the user can make requests to WDRA in case of any misappropriation of produce or funds. The access to the portal will be open to all and all such grievance complaints will be available to WDRA to take action on. Details on the type of requests will be developed in consultation with WDRA during detailed design phase.	 WDRA Accreditation Agency Banks Warehouseman Farmers and Depositors
Audit/ Inspection of Warehouses	 Audit and inspection of warehouses by accreditation/inspection agencies Periodic inspection updates by warehouseman Any audits undertaken by WDRA in cases of emergencies 	 WDRA Accreditation Agency Inspection Agency Warehouseman
Reporting	The solution should meet all reporting requirements of WDRA. The solution should support reporting at different levels such as warehouses, accreditation agencies, banks and WDRA.	 WDRA Accreditation Agency Banks Warehouseman
User Administration	User administration module should help administrators implement the proposed user access policy for the entire NWR solution. The access to this module will be limited to WDRA officials who would be responsible for granting, revoking or modifying access of different stakeholders to the system. This module will also include self service to add or modify any commodities that have been included by WDRA in their list of commodities against which NWR can be issued.	1. WDRA
Commodity Management	This module will include self service to add any new commodities that have been include by WDRA in their list	1. WDRA

Helpdesk Support	 of commodities against which NWR can be issued. The newly added commodities should be automatically linked to databases for prices and grades. This module will provide the warehousemen, the bankers, the accreditation agencies and WDRA, the functionality to access all relevant documents, raise problem tickets and get online technical support. All stakeholders should be able to get: Online access to the W(D&R) Act, 2007 and all rules and regulations thereof. Request information or raise a query against particular NWR. Raise a helpdesk ticket for any incident or problem related to the application or infrastructure problems like connectivity issues Check the status of tickets and get notifications The module will be used at the other end by helpdesk support staff (provided by WDRA) for managing and resolving all user requests. In addition, the helpdesk staff will also raise tickets when contacted over phone for issuing electronic receipts by warehouses in cases of hardware failure. The module should also support the monitoring of all helpdesk users should be able to issue NWR and should be able to capture the requestor warehouse detail, for offline modes of operations 	1. 2. 3. 4. 5.	WDRA Accreditation Agency Banks Warehouseman Helpdesk Staff
User Self Service	update their profiles as per WDRA rules and regulations through this module.	All User	rs

The overall system (including functions and integrations) is envisaged as follows -



The following sections describe the various processes that should be supported on the NWR Platform. However, these processes are indicative in nature and not exhaustive. The bidder should familiarize himself with the W(D&R) Act, 2007, and the rules and regulations contained thereof. The bidder should ensure that the system design is in conformance with the W(D&R) Act, 2007, rules and regulations, as in force on the day of the system design.

2.2.1. Empanelment of Accreditation Agencies

Empanelment of Accreditation Agencies

- 1 WDRA would invite applications for empanelment of accreditation agencies at regular intervals by issuing online tender notification on its website. The same will be accompanied by an active link to the NWRS application where in entities can apply for empanelment as an accreditation agency.
- 2 Entities should be able to submit their online applications to get registered as accreditation agencies on the web based system by creating a login id and password. The same will be active till the entity is empanelled and issued a new login to the system. In case of rejection of application, the same will be active for next two financial years.
- 3 Online application process should support uploading of all documents (or alternately sending the same to the central helpdesk that will upload it into the system) against a checklist provided by WDRA. Applicant should be able to make payment for fees and security amount through secured payment gateway or a payment challan.
 - a. In case of payment challan, the payment can be made by depositing the application fee with the necessary transaction charges in the bank in favor of WDRA. The challan can be printed from the link provided in the payment page. Users would need to provide the challan number (journal number) online to complete the application form.
- 4 Entities should be able to track status of their online application in all stages of the process.
- 5 WDRA should be able to see and update the status of all applications. It should be able to check all documents submitted by various entities through a document checklist, answer queries and accept/refuse applications.
- 6 Before granting registration to any entity, WDRA may make offline enquiry, conduct a site visit and require further information. Applicants should be informed on the same through SMS and E-mail and they should be able to upload the required information on suggested links against their application.
- 7 All entities empanelled as accreditation agencies should receive a digitally signed certificate over email as well as confirmation SMS on contact details provided at the time of submission of application.
- 8 Empanelled accreditation agency should be provided with permanent login information through secure automated emails. Changing of first time login information should be mandatory.
 - a. In case entity is not granted a certificate of empanelment, the same should be updated in the application status and sent through SMS and E-mail. Also option should be available to the applicant to appeal against the decision.
- 9 Empanelled accreditation agencies should be able to download all necessary documents of W(D&R) Act, 2007 and supporting regulations, guidelines and circulars.

Renewal of Empanelment of Accreditation Agencies

- 1 Accreditation agencies would need to submit online application of renewal of empanelment and upload all supporting documents as per checklist provided by WDRA. Online application process should support uploading of all documents (or alternately sending the same to the central helpdesk that will upload it into the system) against a checklist provided by WDRA. Applicant should be able to make payment for fees and security amount through secured payment gateway or a payment challan.
- 2 Rest remains the same as in above section.
- 3 All accreditation agencies will receive a new digitally signed certificate over email as well as confirmation SMS on contact details provided in the system. Login details would remain the same. Renewal of registration should be captured in the profile details of the agency.

Suspension/Cancellation/Revocation of Empanelment

- 1. WDRA should be able to cancel/suspend/revoke the empanelment of various accreditation agencies under various reasons specified in the act.
- 2. As soon as such an order is passed against any accreditation agency, the access to the system for any such agency should be restricted as per defined user policy and the cases of warehouse accreditation with the agency should be handled in the following manner:
 - a. WDRA should be given the option to transfer the pending cases to other nearby agencies.
 - b. Information of cases transferred should be sent to the receiving agencies through SMS and E-Mail. Receiving agencies should be able to change the status of all these cases as under the normal process of warehouse accreditation.
 - c. All warehouses that are accredited with a cancelled/revoked/suspended agency, their cases and records should be available to WDRA for further action and reallocation. Both accreditation agencies and warehouses should be informed through E-mail and SMS on the same.

It should be noted that all the above three processes will also be available for empanelment of inspection agencies, renewal of their empanelment, or cancellation/revocation/suspension of empanelment as the case may be.

All fee refunds wherever applicable would be processed through the payment gateway only, to the account of the instrument making the payment. In case of refund for payments made through the bank challans, the current system of payment through cheque or draft would continue.

2.2.2. Accreditation and Registration of Warehouses

Accreditation of Warehouses

- 1. Applicants seeking grant of certificate of accreditation for their warehouses should be able to apply online for the same with any accreditation agency registered with WDRA. They should be able to register themselves on the web based system by creating a temporary login id and password.
- 2. Applicant should be provided with list of all accreditation agencies as applicable to him wherein he can choose the accreditation agency nearest to his warehouse location, upload all documents (or alternately sending the same to the central helpdesk that will upload it into the system) against the checklist provided by WDRA. Applicant should be able to make payment for fees and security amount through secured payment gateway or a payment challan.
 - a. In case of payment challan, the payment can be made by depositing the application fee with the necessary transaction charges in the bank in favor of accreditation agency. The challan can be printed from the link provided in the payment page. Users would need to provide the challan number (journal number) online to complete the application form.
- 3. Applicant should be able to track the status of his application at each stage of the process.
- Accreditation agency on receiving the online application should be able to inform the applicant regarding the date of first inspection. The information should be sent to the applicant through SMS and E-mail and updated in his application status.
- 5. Accreditation agency should be able to create and update the inspection report along with required proofs against the format/checklist provided by WDRA.
 - a. In cases some of the conditions are not fulfilled, the accreditation agency should be able to give a notice to applicant to rectify the same in 30 days and also communicate the next date of inspection. The information should be available to the applicant through SMS and E-mail and updated in his application status.
- 6. On complete satisfaction of all conditions being met, the accreditation agency would issue a certificate to the applicant which will be sent to him by post, the details of which will be updated in his application. Updated status information should be sent to the applicant through SMS and E-mail.
 - a. In case, accreditation agency even after repeated investigations does not grant a certificate of accreditation, the same should be updated in the application status. Updated status information should be sent to the applicant through SMS and E-mail. Also option should be available to the applicant to appeal against the decision to WDRA

- All communication/orders/inspection reports from WDRA/accreditation agency related to the warehouse should be available in the login while SMS and E-mail notifications will be sent for all account updates.
 The avatam about a logic the conturnent the signature of the warehousement for future validation.
- 8. The system should also be able to capture the signature of the warehouseman for future validation.

Suspension or Cancellation of Accreditation Certificate

- 1. Accreditation agency upon undertaking a periodic inspection may find that the warehouse is defaulting in complying with requirements for grant of a certificate of accreditation or is not complying with any of the provisions of the Act, rules and regulations thereof.
 - a. Agency shall record the same in its periodic inspection report and update the status of the certificate of accreditation that it had earlier granted. SMS and E-mail notification would be sent to concerned warehouse as well as WDRA.
 - b. WDRA would also be able to download the inspection report from their respective logins.
 - c. WDRA may suspend or cancel the registration of the relevant warehouse or order another accreditation agency to undertake an inspection of the warehouse. Based on the findings of inspection report, WDRA would determine whether to suspend or cancel the registration of the relevant warehouse
 - d. The entire process should be captured in the system, reminders should be sent to WDRA in cases where in decision on the status of registration of a warehouse whose accreditation is cancelled remains pending.
- Also, in case WDRA suspends or cancels the registration of a warehouse, the certificate of accreditation issued by an accreditation agency in respect of such warehouse should be automatically suspended or cancelled.
 - a. If WDRA withdraws its order of suspension of registration of the warehouse in future, the certificate of accreditation will also stand reinstated unless WDRA directs for new accreditation certificate to be issued.
- All holders of active NWR issued by a warehouse whose accreditation is cancelled should receive SMS and E-mail that the accreditation for the warehouse has expired and it is no longer advisable to keep their produce in the warehouse. In case of pledged receipts, the same should be sent to bank branch manager also.

Post cancellation or suspension of warehouse accreditation, restricted access to the system would be available to the warehouseman for closing/cancelling all active warehouse receipts issued by warehouse during its period of accreditation.

Renewal of Accreditation Certificate

- 1. The process for renewal will be same as that for accreditation of warehouses. All warehouses would need to apply for accreditation once the initial period of accreditation of 3 years has expired. The warehouse should be able to make the application online.
- 2. Warehouses that fail to comply with the WDRA guidelines of renewal of accreditation should receive notifications till a grace period defined by WDRA in its user access policy. During the grace period, they will be able to login into their system but not be able to issue any NWR.
 - a. All holders of active NWR issued by such a warehouse should receive SMS and E-mail that the accreditation for the warehouse has expired and it is no longer advisable to keep their produce in the warehouse. In case of pledged receipts, the same should be sent to bank branch manager also.
 - b. If all such warehouses do not apply for renewal of accreditation in further stipulated time, his login should be disabled and process same as cancellation/revocation/ suspension of accreditation or registration certificate will be followed.
- 3. Warehouses that have applied for renewal of accreditation should be able to continue their business as usual till the status of the application is not resolved by the concerned accreditation agency.
- 4. On complete satisfaction of all conditions being met, the accreditation agency would issue a digital certificate to the applicant, the details of which will be updated in his application status and also sent to him through SMS and E-mail.
 - a. In case accreditation agency refuses to renew the accreditation certificate, process same as

cancellation/revocation/ suspension of accreditation certificate will be followed.

Registration of Warehouses

- Applicants that have already applied for and received the accreditation certificate should be able to apply online for registration of their accredited warehouses. Online application process should support uploading of all documents (or alternately sending the same to the central helpdesk that will upload it into the system) against checklist provided by WDRA. Applicant should be able to make payment for fees and security amount through secured payment gateway or a payment challan.
 - a. In case of payment challan, the payment can be made by depositing the application fee with the necessary transaction charges in the bank in favor of WDRA. The challan can be printed from the link provided in the payment page. Users would need to provide the challan number (journal number) online to complete the application form.
- 2. Applicant should be able to track status of their online application in all stages of the process.
- WDRA should be able to check the status of all applications and take necessary actions. It should be able to check all documents submitted by various entities through a document checklist, answer queries and accept/refuse applications.
- All refusals to registration are preceded by a personal hearing at WDRA Head Office. The communication for the same should be sent to applicant through SMS and E-mail and same should be updated in his application status
- 5. Before granting registration to any warehouse, WDRA may make enquiry and require further information. Applicants should be informed on the same through SMS and E-mail and they should be able to upload the required information on suggested links against their application.
- 6. All warehouses registered with WDRA will receive a digitally signed certificate over email as well as confirmation SMS on contact details provided at the time of submission of application.
- 7. Registered warehouses should be provided with requested login information through secure automated emails. Changing of first time login information should be mandatory. Post this, all information available on the previous login should be available as history in the new login and the old login should be blocked/ cancelled.

Renewal of Registration of Warehouses

- 1. The process for renewal will be same as that for registration of warehouses. All warehouses would need to apply for registration once the initial period of registration of 3 years has expired. The warehouse should be able to make the application online.
- 2. Warehouses that fail to comply with the WDRA guidelines of renewal of registration, all such warehouses should receive notifications till a grace period defined by WDRA in user access policy. During the grace period, they will be able to login into their system but not be able to issue any NWR.
 - a. All holders of active NWR issued by such a warehouse should receive SMS and E-mail that the registration for the warehouse has expired and it is no longer advisable to keep their produce in the warehouse. In case of pledged receipts, the same should be sent to bank branch manager also.
 - b. If all such warehouses do not apply for renewal of registration in further stipulated time, his login should be disabled and process same as cancellation/revocation/suspension of registration certificate will be followed.
- 3. Warehouses that have applied for renewal of registration should be able to continue their business as usual till the status of the application is not resolved by the concerned accreditation agency.
- 4. On complete satisfaction of all conditions being met, WDRA would issue a digitally signed certificate over email as well as confirmation SMS on contact details provided at the time of submission of application.

In case WDRA refuses to renew the registration certificate, process same as cancellation/revocation/ suspension of registration will be followed.

Updating of Registration of Warehouses

- 1. The process for updating of registration in cases like change of warehouseman will be same as that for registration of warehouses. The warehouse should be able to make the application online and pay the required fees through payment gateway or online challan.
- 2. On all conditions regarding change of warehouse registration being met, WDRA would issue a digitally signed certificate over email as well as confirmation SMS on contact details provided at the time of submission of application.
 - a. In case WDRA refuses to change the registration certificate, process same as cancellation/revocation/ suspension of registration will be followed.
 - b. If there is a change in the name of warehouseman, then the signature for the new warehouseman should be captured before the issue of the updated registration certificate.

Suspension or Cancellation of Registration of Warehouses

- 1. WDRA should be able to cancel the registration of warehouses if it files an application to declare him insolvent, or has lost control of the warehouse or has ceased to conduct the business. The warehouseman may commit fraudulent acts or not permit regular inspections/audit or not comply with WDRA regulations.
 - a. Inspection agencies may also make recommendations for cancellation on the basis on their annual inspection reports.
- 2. Post cancellation or suspension of warehouse registration, most of the access to the system would be disabled for the warehouseman except for closing all active warehouse receipts issued by the warehouse during its period of registration.
 - a. All holders of active NWR issued by such a warehouse should receive SMS and E-mail that the registration for the warehouse has expired and it is no longer advisable to keep their produce in the warehouse. In case of pledged receipts, the same should be sent to bank branch manager also.
 - b. All receipt holders and banks (if the receipt is pledged) will be sent regular monthly SMS with information regarding the cancellation of warehouse registration till the receipts issued under their name are active.
- 3. WDRA should be able to draw reports from the system for all such warehouses whose registration has been cancelled to honor any complaints in grievance portal for the same.
 - a. After a year of cancellation of registration of all such warehouses, all access to the cancelled warehouse will be disabled and information for all active receipts should be available with WDRA.

Inspection and Audit of Warehouses

- 1. Inspection of warehouses will be conducted by inspection agencies. Few of accreditation agencies will be empanelled as inspection agencies also. WDRA should be able to assign inspection schedules to accreditation agencies.
 - a. Agencies can inspect only those warehouses that were not originally accredited by the same agency.
 - b. Inspection agencies should be able to update the results of inspections on work list items assigned to them.
- Inspection agency should be able to download all instructions received from WDRA, update details of warehouses inspected, commodities stored in those warehouses and complete inspection reports for each of the warehouses.
 - a. Templates regarding inspection reports should be provided to inspection agency where in they can update inspection conditions, inspection methods and procedures, observations, conformity decisions with relevant justifications and documentary proofs.

2.2.3. Warehouse Transaction of Negotiable Warehouse Receipts

Issue of Negotiable Warehouse Receipt

Any new depositors shall be registered with the warehouse and given unique numbers which will be used by the depositor for future references. Details of depositor should be captured with approved ID proofs like Aadhar Card, ration/ PDS photo card, voter card, NREGS job card, Kissan photo passbook and any other KYC norms as proposed by WDRA in future.

- 1. When depositor comes to the registered warehouse to deposit the produce, the warehouseman should be able to search the depositor's detail by entering various parameters. All details should be automatically populated in the receipt.
- 2. Warehouseman should be able to select the commodity, quality description, grade, weight metric and associated prices from various drops down options. Daily price data for various crops should be available through certified government sources like Agrinet. On entering quantity in selected metric, the system should calculate and display the total metric value. Similarly, quality specifications should also be available in the system from certified sources. FAQ as a grade quality will also be available.
- 3. Warehouseman should be entering other details like stack numbers, number of packages, private marks on the deposit, storage tenure and shelf life validity.
- 4. Warehouseman should update store handling charges and various insurance policy details in its profile. On first logon, all such information should be automatically populated with provided at the time of registration.
- 5. All receipts issued to depositors will bear unique numbers and other physically verifiable security features. In case of unavailability of internet connectivity, temporary receipt will be issued to the depositor. Permanent receipt will be generated on synchronization with central server.
 - a. Only one receipt will be issued as original, all subsequent prints will be marked as duplicate prints with reason specified.
 - b. Receipt will only be issued post the filling of mandatory information as required by W(D&R) Act, 2007.

Warehouseman should be able to issue a NWR only if the storage space registered with WDRA is available. At the time of registration, warehouses need to provide information on the maximum weight of all commodities in total for which they can issue NWR at any given point of time. This value should be setup at the time of warehouseman account activation and should be automatically updated at the time of issue or discharge (partial/complete) of NWR. The same should be checked for a non-zero value before issue of any NWR.

Also, it is imperative that the warehouseman checks the commodities regularly for any deterioration in quality. System should have inbuilt reminders for the warehouseman to check the produce regularly based on the produce type and the cycle it associates to.

- ✓ For any quality changes to the produce, automated SMS and E-mail (if applicable) should be sent to the depositor once warehouseman updates the results of inspection in the system.
- ✓ In case the receipt is pledged with the bank, the same information should also be sent to bank officials.
- ✓ A sample of the paper NWR is provided for reference below

Negotiable Warehouse Receipt See section 11 of the Warehousing (Development and Regulation) Act, 2007

(Name and Location of Warehouse)

Received fro	egistration no	If the deposition) .		d up-ta		
i i en	wing descriptions: -	letter meterale				
Commodity	Description of commodity, with quality/grade etc.	No. of packages / bags	Net quantity in MTs/Qtts.	Market value at the time of deposit	Total merket value	Godown / Stack number
					and the second se	and a second second second second second
tivete marke	of the depositor on the	packages. If am				
	of the depositor on the					
	of the depositor on the					
late of stora						
late of stora	as and handling charge					
Rate of stora	e and handling charge e, floods , theft ,burgier Policy nc.	s y, misappropriatio				Name of the insuran

10.The goods are accepted for storage from......

11. This receipt is yalid up to being the date of expiry of the declared shef-ide.

> Name and signature of warehouseman/authorised official with seal Tel No.

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2 Endorsem 1)	Deliver the goods under receipt No	 , or to his order	
			Name and signature with full address)
	2)	Deliver the goods under receipt No	 or to his order

(Name and signature with full address)

(Name and signature with full address)

13- In case of lien/pledge of negotiable warehouse receipt (NWR):

Name of the banA/financial Institution with whom NWR pledged	Date of Fen/pledge	Value of Senipledge	Date of noting	Signature of warehousiman / authorised official	Date of release of lien/pledge	Signature of warehouseman / authorised official
						-

14- The goods mentioned below are hereby released from the receipt for delivery from warehouse. Any unreleased balance of goods is subject to a lien for unpaid charges and advances on the released portion: -

Br.No	Date	No Date	Quarti	ty released	Balance quantity	
		Bags/Packages	Weight in MTa/Otta	Begs/Packages	Weight in MTs/Qts.	
		*.				

Signature of warehouseman / Authorised official

TERMS & CONDITIONS FOR NEGOTIABLE WAREHOUSE RECEIPT (NWR)

- 1. The goods received shall be delivered to the depositor or to his order.
- 2. All the goods property marked and packed, shall be delivered at the warehouse. The warehouseman undertakes to store and deliver
- the goods only in packages in which they were originally received unless specifically authorised by the depositor to do so otherwise.
- Each holder shall keep the receipt in a good condition as as to maintain the data recorded on the warshouse receipt in a clear & legible manner. The receipt and insurance should be valid only till the date of expiry of declared storage period of the goods for which it is issued.
- The previous/new holder of NWR should notify immediately to the warshouseman of any endorsement/transfer clearly indicating about the identity and address of the new holder of NWR.
- The warehouseman will issue NWR only for those commodities for which warehouse is registered under the Warehousing (Development & Regulation) Act, 2007.
- 6. "Instructions for delivery / transfer of goods will always be in writing and signed by the holder of NWR. The goods shall be delivered to the holder of the negotiable warehouse receipt or to the order of a named person.
- No goods covered by the NWR shall be delivered unless the properly endorsed receipt is sumendered for cancellation or for delivery of endorsement of partial delivery, thereon.
- In case a warshouse receipt is lost or destroyed, goods covered by it shall not be delivered until the person lawfully entitled to possession of the goods, obtains and surrenders a duplicate receipt.
- The quality, condition, value & contents of goods, shall be declared in the NWR at the time of deposit of goods.
- 10. The warehouseman's liability shall be as per the provisions contained in the Warehousing (Development & Regulation) Act, 2007.
- 11. The warehouseman undertakes to exercise reasonable care and diligence required during storage of goods.
- 12. The warehouseman undertakes to accept only storable goods and shall not accept any goods that are damaged.
- 13. All goods stored in the warehouse should be insured against the fake of fire, floods, theit, burglary, misappropriation, nots, strikes or terroriam;
- The warehouseman is not responsible for the usual and normal strinkage in weight and effect on quality during storage due to natural causes.

Issue of Duplicate Negotiable Warehouse Receipt

- 1. Receipt holder would need to apply in person to warehouseman for issue of a duplicate receipt in lieu of an original one that is lost, damaged or mutilated. The application shall be accompanied with the fee of rupees one hundred through bank draft or banker's cheque of any nationalized bank in favor of warehouseman.
 - a. While issuing the receipt, payment details need to be captured by the warehouseman without which the process should not be completed in the system.
 - b. Option to issue a duplicate receipt for any receipt that is pledged with the bank or has been marked for processing for loan by any bank should be disabled.
- 2. On submission of request for issue of duplicate receipt, original receipt will be cancelled and new receipt should be generated with unique number or a prefix to original receipt number and should be marked as "Duplicate" in the header. Reason for issuing the duplicate should be clearly mentioned on the receipt and in the system
 - a. All information in the original receipt should be replicated in the new receipt along with any history of endorsements and pledging.
 - b. The original receipt should be automatically cancelled mentioning that a duplicate has been issued for the same with reference link to the new number to which warehouseman can navigate. The original receipt should be available as a read only record.

Cancellation of Receipt or Partial Withdrawal of Commodities

- 1. When a request for the complete or partial withdrawal of commodities is received, the following checks will be performed in the system:
 - a. The receipt should not be pledged or marked for processing of loan by any bank.
 - b. Identity of the receipt holder would need to be checked against the information in the system.
- 2. In case of partial withdrawal of commodities from the warehouse, warehouseman should be able to update the receipt with required information in the withdrawal section. All such receipt should now be disabled for pledging or endorsement with any financial institution.
 - a. Warehouseman should be able to take a print of the receipt and a confirmation note for withdrawal of commodities. The receipt will be given to the farmer or depositor and the signature of receipt holder would be captured on the confirmation note.
 - b. Farmer or depositor will also return the original NWR, the same information is captured on the confirmation note as well.
 - c. Confirmation note numbers and history should be available for the corresponding NWRs.
 - d. There should be an option to record of documents like gate pass, gate register and weighment slip details during withdrawal of commodities.
- 3. In case of complete withdrawal of commodities, the receipt will be closed in the system and a confirmation for the same will be available for print. Signature of the receipt holder needs to be captured on the note and the same needs to be filed with the warehouseman.
 - a. Confirmation note numbers and history should be available for the corresponding NWRs.
 - b. All closed NWRs should be read only.
- 4. If the receipt holder wishes to extend the validity of the receipt, he should be sent a reminder few days (as proposed by WDRA) before the expiry of the receipt as he can only make a request for extension 15 days in advance of expiry of the initial storage period. On receipt of request for extension by receipt holder, the warehouseman would inspect the quality of produce and enter the same in quality history checks. If found suitable for storage, the warehouseman should be able to close the old receipt and issue a new one with extended expiry. All cross referencing to older receipt should be automated.

Endorsing of Negotiable Warehouse Receipt

- 1. All endorsements need to be recorded at the warehouse level according to the act. Seller of the receipt would need to inform the warehouseman in case of any endorsements along with details on the change of title of ownership.
- 2. Warehouseman should be able to search for the details of endorsee and endorse the receipt in his favor. It

is imperative that as in case of issuance, all endorsees shall be registered with the warehouse and given unique identification which can be used by the endorsee for future references. Details of endorsee should be captured with government approved ID proofs.

- a. History of all endorsements that occur on a particular receipt are captured in the system and appended to the receipt format when printed.
- b. Warehouseman should be able to enter contact details during the transactions especially the mobile number which will be used for all further communications to the receipt holder. The new mobile number should be captured in the system.
- c. The seller of the receipt would also need to return his/her copy of NWR to warehouseman.
- 3. Warehouseman should be able to take the print of the receipt after the transaction is completed in case it's required by the seller/endorsee.

2.2.4. Bank Transaction of Negotiable Warehouse Receipts

Banks will be given access to the NWRS by exposing web services to all banks. Bank officials can then access the service by integrating it with their core banking solutions and login using their own bank login details.

Another option of giving banks access to the system is to create few administrators for each bank after proper KYC conducted by WDRA. The bank administrators would be then issuing logins to branches that wish to access the NWRS through internet. WDRA should be able to draw reports on all users created by bank administrators periodically if required for audit purposes.

Pledging of Negotiable Warehouse Receipts

- 1. Bank official should be able to check the status and details of all receipts presented to them for pledge/lien. They should be able to see all details that are presently available on the paper receipt format.
- 2. Bank officials may mark a receipt for processing while they are completing the necessary formalities and bank processes before approval of loan. Once marked for processing, the receipt will be locked for any action for a stipulated time which will be discussed with IBA.
 - a. Warehouseman should receive notification in his system regarding the receipt on which loan is being processed wherein he should be able to provide a confirmation that the underlying security mentioned in the receipt is kept in his warehouse.
 - b. The bank official should be able to view history for the warehouse from which the receipt being pledged is issued. A standard template will be made available for the information required by bank officials regarding the warehouse. This would primarily include general information, accreditation status, insurance details, educational qualifications, defaults if any on warehouse receipts, auctions if any on warehouse receipts.
 - c. If bank officials are unable to change the status of the receipt to "Loan Approved" or "Loan Rejected", the same shall be unlocked and available again for the holder to pledge to any other bank or endorse or take delivery of underlying commodities.
 - d. If banks change the status to "Loan Rejected", the receipt will be unlocked as discussed above, however history of the pledge being rejected should be available to any other financial institution that queries the same receipt
- 3. Once the loan is approved, the status of the receipt will change to "Loan Approved". Bank official would need to fill in necessary loan details like amount approved, interest rate charged, tenure of the loan, interest subvention scheme if any, payment schedule etc.
 - a. Post disbursal of the approved loan, the status of the receipt should be changes accordingly. Bank official should be able to enter details regarding the disbursal also.

In all the above stages, no other transactions of endorsements, delivery of commodities, and issue of duplicate can be carried out on the receipt.

Also, at all stages, SMS and E-Mail notifications should be sent to the receipt holder on change of status.

Repayment of Loan and Release of Pledge of Negotiable Warehouse Receipts

- 1. On repayment of loan by the receipt holder, the bank official should be able to release the receipt and system should send a notification on the same to the warehouseman.
- 2. Bank official would also need to enter details on interest subvention scheme at the time on release. All time stamps should be automatically populated.
- 3. On release of pledge, bank official should be able to print an acknowledgment of release of physical copy of receipt to the holder and capture his signature on the same for bank file purposes.
- 4. In cases of defaults by the receipt holder, bank officials should be able update the same in the system and initiate the process for the transfer of ownership of the commodity from receipt holder to bank. On confirmation from warehouseman and filling of all required information and details regarding the default, the title of ownership should be transferred to the bank branch.

2.3. Reporting Requirements

In addition to the above functionalities, stakeholders should be able to draw out customized reports based on their user access levels. WDRA should be able to draw from the system on monthly, quarterly and yearly basis. They should be able to draw reports on all NWRs issued, financed or auctioned state wise/ commodity wise/warehouse wise/time wise. WDRA should also be able to check capacity utilization for all registered warehouses, availability of commodities at different warehouses from warehouse wise stock reports. The solution should be able to automatically generate the above reports (including but not limited to) for WDRA at regular time intervals. Default history regarding the warehouses should be available at WDRA level.

The NWRS system shall provide a facility for generating and viewing online, real-time project and MIS reports for transactions handled during a specified period, transaction density trends for any specified periodicity (hourly, daily, weekly, monthly) and any bottleneck situation creating dependency at any stage. The Reporting system and Dashboard shall be an integrated system which shall provide user-friendly reporting functionalities for the WDRA staff. The MIS details will be worked out during the SRS stage.

Banks should be able to draw reports on all available information on NWRs either financed by their own branch or any of other branches of the same bank. Critical information that banks may need on NWRs pledged with them is tenure of validity, date of expiry of NWR, current commodity quality status, amount of financing done etc.

All users would be able to query the status of the NWR on the website.

2.3.1. Technical Requirements for Reports

- 1. Users should be able to use the solution to query the NWRS databases using details of the query and be able to retrieve information from the individual databases and aggregate it.
- 2. NWRS should support the monitoring in both the occurrence, when an event or time driven activity is triggered.
- 3. NWRS should provide a search option to the authorized stakeholder so that he can search the information which should be sorted according to Date, Department, location etc
- 4. NWRS apart from providing the facility to print and e-mail the report should also provide a printer friendly version automatically for all pages.
- 5. The proposed solution must follow a modular and scalable design. The entire system will be conceptualized as a single entity but individual modules are prioritized for implementation over time.

6. The proposed solution based upon a multi-tier (n-tier) architecture design, should allow the business rules to be changed accordingly, with either little changes, if at all, to the interface or the data tier.

2.4. Offline Connectivity Requirements

The NWRS should provide high-performance, interactive, and rich user experiences while operating in stand-alone, connected, occasionally connected, and disconnected scenarios.

The solution may run on the client machine but communicate with services exposed by other layers (both logical and physical) that expose operations the client requires. These operations may include data access, information retrieval, searching, sending information to other systems, backup, and related activities.

The solution should provide for the following functionalities for offline connectivity:

- 1. All functionalities detailed in Section 2.2.3 should be available in offline mode.
- 2. NWRS should have reliable sessions to recover on intermittent connectivity. It should make efficient use of the network and ensure that network capacity is fully used.
- 3. Batching capabilities should be implemented in NWRS, enabling application to synchronize large number of records without timeouts. It should also be ensured that on an intermittent connection, NWRS is able to continue from the point where the connection failed.
 - a. NWRS should have the capability to restart a failed synchronization operation from the start of the current batch, rather than the start of the entire set of changes, making the whole solution scalable.
 - b. NWRS should support data compression of batched data streaming over the network to ensure minimum network usage and quick transfer.
- 4. If required, NWRS should remove of dependency of a dedicated network connectivity by providing
 - a. Capability of taking the data in to external media (USB) and uploading the data from external endpoint (internet café). All transfers should be in encrypted format.
 - b. The capability of downloading the data from central server into external media and uploading into client in case of emergency recovery issues.

2.5. Support for Issuance of Non-Negotiable Warehouse Receipts

The solution should also support issuance of normal warehouse receipts that the warehouseman may want to issue. The solution should enable the entry of all information fields that are present in a NWR issued by WDRA. However, these fields would not be mandatory in case of issue of non-negotiable warehouse receipts.

Warehouses should be able to access all information on the different types of commodities available at their warehouse along with their respective staking details. They should be able to analyze their capacity utilization basis on the number on warehouse receipts they have generated.

Corporate warehouse groups like CWC and SWC should be able to utilize this feature for summary MIS reporting to gain a view of their entire operations.

A configuration component shall be there for configuring the behavior of the SMS gateway component. This includes defining and managing the authentication and access to the gateway functions, scheduling the delivery of the SMS, defining the template of the outbound message communication etc. Both the alert and the enquiry component's functioning should be driven by the configuration data maintained in the configuration component.

2.6. Support for SMS Based Alerts

The integration with SMS gateway shall provide following features:

- 1. The system shall be able to verify basic details of the user for due verification during the registration process as the same mobile number may be used for further communication / transaction.
- 2. The authentication parameters shall have to be developed and build in NWRS mobile integration gateway.
- 3. Integration with the NWRS database shall have to be developed to ensure real time data availability, as well as limited transactional rights for the users.
- 4. Proper Audit trail mechanism shall be in built in the system to capture the performance and quality of service provided through mobile gateway. All the issues related to successful or unsuccessful execution of user request may be validated through the audit trail.
- 5. The system shall have to be integrated with the SMS gateway to send and receive SMS from the users to track their requests.
- 6. The system shall have an alerting component to enable NWRS system:
 - a. To alert citizen about the change in status of the NWR to the stakeholders
 - b. To alert stakeholders, about the notification/circulars WDRA would like to share with the various stakeholders.
- 7. An enquiry component shall allow NWRS to service the citizen for following queries:
 - a. Application status inquiries from warehouse/accreditation agencies received through SMS based on the application number.
 - b. Inquiry for the details (name and number) of NWR based on NWR number.
 - c. Other queries as defined in the functional requirements
- 8. Specific SMS formats shall be designed for sending and receiving text messages.
- 9. A Toll Free SMS number shall be made available where all the messages shall be sent by the users.

2.7. Payments Related Requirements

The successful bidder may be required to integrate with other payment options as and when required by the WDRA in future. This will mainly include challan payment system and payment gateways for online payments through internet banking/debit cards/credit cards. The solution should be able to support multiple payment gateways.

- 1. The system should provide for and allow financial transaction functions. It should check for all details of the service before initiating the payment and enable the payment option only when all the information in service request is filled.
 - a. The system should return back and highlight inconsistencies / error for user to rectify them. The system should retain all the information of the service request form besides those having inconsistencies

- b. The system should return back after successful checking of information with the prompt for confirmation to open the payment page. A new page for recording payment details against the service request should be opened.
- c. The system should be able to open a page with declaration on successful payment output.
- d. A confirmation of transaction to the user should be provided on successful payment along with payment receipt with a printable version of it too
- 2. All details of payment should be recorded against a unique service application number. All the payment records should be maintained in the database and should be easily retrievable.
 - a. The system should be such that it should not allow for part payment function
 - b. Unique application number for requested service should be provided
- 3. The system should allow transaction through approved financial instruments like:
 - a. Credit cards
 - b. Debit cards
 - c. Net Banking
- 4. The system should provide for migration to payment gateways from NWRS in a secured manner. It should also allow predefined data / information to be provided to payment gateways.
- 5. The system should be able to generate unique ID codes for every transaction.
 - a. The system should be able to correlate and confirm user data / information and payment gateway data information through unique ID code generated.
- 6. The system should not store any critical information of the user provided on the secured payment gateway.
- 7. The system should allow for data / information transfer / flow across WDRA modules during payment process
 - a. The system should facilitate automatic updation of the information on the applicant record on successful payments made
 - b. The system should maintain all information and records of user transactions tagged to the user account. It should also provide for viewing of such information as and when required by the user.
 - c. The system should not allow any changes to be made by the user into the past records, any ongoing transaction once confirmation on initiation of such a transaction is given by the user or any values maintained for such transaction.
- 8. The system should be compatible for easy integration with application either inbuilt at a later stage into the solution or external with an interface with the solution.

2.8. Third party Integration Requirements

Apart from integration with payment gateways, following key integrations will be required for various functionalities proposed in Section 2.2:

- 1. Integration with Core Banking Solution of different banks through exposing of web services
 - a. The banking users should be able to login to the NWRS application using their Core Banking Solution user IDs.
 - b. They should be able to check the status of NWRs after entering the requisite information the specific NWR
 - c. They should be able to perform pledging and de-pledging transactions on NWRs. The NWRS should be able to capture the user details from CBS.

- 2. Integration with applications of commodity exchanges through exposing of web services
 - a. The commodity exchange users should be able to check status of NWRs after entering the requisite information the specific NWR
 - b. They should be able to perform endorsement transactions on NWRs
- 3. Integration with certified government sources like Agrinet for information for market prices of different qualities and grades of various types of agricultural commodities.
- 4. Integration via secured web service to share NWRS data with warehouse management system (WMS) running at warehouses. Only the data pertaining to a NWR issued and updated is to be shared. Alternately, there should be an option to extract the NWR data in flat file.

2.9. Security Requirements

2.9.1. Physical Security Requirements

Physical security safeguards need to be considered for all electronically printed NWRs as well as information resources residing in static facilities (such as buildings), mobile facilities (such as PDA), and portable facilities (in-transit facility housing).

All warehouse receipts should be printed with a unique, intelligent and two dimensional bar code (conforming to the GS1 standards) that may be scanned with any bar code scanner. Multiple printing of NWR should be prohibited in the system. All electronically printed NWR will be printed only once from the system. All subsequent copies of the same receipt will be watermarked as duplicate prints, and should be allowed only after entering the reason for duplicate printing.

Since the solution would also be available offline, it is important that the synchronization for local databases at client machine is secure and tamper-proof. Local databases at the warehouses in PC/Laptop/PDA should not be accessible by users at the warehouse level.

2.9.2. Logical Security Requirements

The solution must provide a security blanket to protect all applications, services, data and the infrastructure from malicious attacks or theft from external (through internet) and internal (through intranet) hackers. Use of firewalls and intrusion detection systems provided by hosting services provider should ensure that such attacks and theft are controlled.

Furthermore, all the system logs should be properly stored & archived for future analysis and forensics whenever desired. The successful bidder shall get a security audit done for the entire solution as part of scope of work within one month of Go Live.

Following are the key logical security requirements:

Requirement	Description
	Authentication Related
User Identification And Authentication	All the computing devices (servers, desktops, network devices) shall uniquely identify and authenticate the user or any process that acts on behalf of any user.
Authentication Hint	Application should not give any hint or information during the authentication process to avoid possible exploitation/use of the hint by unauthorized individuals

Handling of Authentication	The application enforces a limit of consecutive invalid authentication attempts by a
Failure	user during a specified short time period.
Enforcing use of quality authentication secrets	The application enforces users to use quality authentication secret by providing a mechanism to verify that the secrets meet specified quality criteria.
Generating Quality Authentication Secrets	The application shall provide a mechanism to generate secrets that meet defined quality metric and to enforce the use of the secret for specified functions
Management of Identifier	The user identifier should be unique for each user so that the activities performed by the user on the information system can be traced back to an individual. The managed process of user account handling shall clearly state the approval authority for creation of user accounts for information systems, suspension/disabling etc.
Password Management	The application should manage the 'information system authenticators' (e. g password) by defining initial authenticator content, establishing administrative procedures for distribution of initial authenticator, re-issuing of authenticator in the event of loss or compromise or damage of user authenticator, establishing administrative procedures for revoking authenticators, changing default authenticators upon information system installation, changing/refreshing .authenticators periodically
	Access Related
System Access Notifications	The application displays an approved, system use notification message before granting access, informing potential users on various issues.
Access Enforcement	The application enforces access control to the system in accordance with the applicable policy
Previous Login Notification	The application should provide logon history details
Control of concurrent sessions	The application is capable of limiting the number of concurrent sessions for any user.
Authenticity of communication sessions	The application provides mechanisms to protect the authenticity of sessions during communication.
Access Logs	The application logs all access events
Enforcing data entry by humans	The application should use CAPTCHA to enforce data input by human only not by computer programs or 'bots'.
	Data Handling
Data Validation	The application checks validity of the input data to the application
Protection of transmitted data	The application protects the integrity and confidentiality of the transmitted data (authentication credentials only) between the client and the server.
Application Partitioning	The application separates user functionality (including user interface services) from application management functionality.
Error Handling	The application identifies and handles error conditions in such a manner so that no sensitive information that could be exploited by adversaries is leaked through the error messages
	Network Control
Network Segmentation	The network architecture and segmentation should be based on different security level (depending on the nature of the information asset and anticipated security threats).
Network Routing Control	The organization should adopt a policy in respect of controlling the information flow within the system and between interconnected systems. The information system should enforce such policy wherever there is a difference in the level of trust

For implementation guidelines to each of the mentioned logical security requirements please refer to document on <u>Guidelines for Implementation of Security Controls available on E-Governance Standards</u> <u>Website.</u>

2.9.3. Critical Security Considerations

- 1. The system should be designed using the standard Information Systems Security Policies and Guidelines or suitable industry standards such as ISO27001 or equivalent to the extent relevant.
- 2. The system shall be designed and developed in a manner that will enable incorporation of any commercially available PKI security solution.
- 3. NWRS should be protected, without any impact on the system, from the following security incidents:
 - a. Virus Attack This shall include malicious code infection of any of the desktops/servers in the network
 - b. Denial of Service Attack This shall include non-availability of service
 - c. Data Theft Compromise of any kind of data through network.
 - d. Intrusion Successful/unsuccessful unauthorized access to WDRA application/network resulting in loss of confidentiality/integrity/ availability of data.
- 4. In case of an impact, the data, database and database structure should not be compromised. Recovery time should not be more than two hours from the time the impact affects the system. The tolerance for compromise of confidential data is zero.
- 5. System should be able to detect and control any unauthorized access to the system, isolate malicious code (viruses etc) infected desktops/servers so as to prevent its further spread.
- 6. System should comply with the IT Act, 2000 and should be able to adhere to all security guidelines issued by Government of India from time to time.

2.10. Usability Requirements

The system should have good ergonomics and aesthetics with excellent GUI. The screen layout and designs, menu options, and other system formats etc, should be designed keeping in mind ease of use by different stakeholders. Successful bidder would need to take a final signoff from the nominated WDRA staff before finalizing any of the above. The system performance and response should be within acceptable limits as defined in the SLA.

The user should be able to customize the portal home page as per his/her interest with the options selected.

The system should have capability to cut/ paste/ format, etc. at a field level on the inputs screens, output screens, etc. The system should have an ability to configure restricted and mandatory fields wherever relevant. It should at the time of input, pre-fill the fields with the next value in the restricted list that matches the characters which have already been entered.

The system's user interface should make use of horizontal and vertical scroll bar feature wherever needed, depending on the layout of the window and the platform for which it is being developed.

The system should include a calendar tool which can be used to graphically select a date when a date field is to be used.

2.10.1. Portals

Portal shall act as a gateway where in various contents can be published. Portal shall have two faces – External (citizens/other Govt. departments) and Internal (intranet WDRA users). Portal shall provide collaboration services by utilizing latest Web technologies to provide a collaborative working environment for its users. The proposed portal shall be streamlined to facilitate the following features:

- 1. A zero-footprint, browser-based customizable interface.
- 2. Role-based, secure, customizable and extensible.
- 3. Point-and-click wizards for users to create, delete and reorder pages, add and remove content, and modify page layout to organize content in their personal workspace.
- 4. Comprehensive search facility for locating content and applications by titles, keywords and descriptions.
- 5. The portal shall provide complete statistical and performance monitoring reports.

2.10.2. Dashboards

As part of the project there shall be a secured, role-based portal that provides personalized interaction with information. Users shall be able to access aggregated information via an easy-to-use Web-based dashboard. The proposed solution shall provide intelligent dashboard to view key performance indicators as defined by the Administrative Heads who require various reports and dashboards for helping them in monitoring and controlling processes. Dashboard shall have following features:

- 1. Role based access to the dashboards.
- 2. Create dashboards from a variety of data sources including information maps.
- 3. Role-based, secure, customizable and extensible.
- 4. Customizable graphical or tabular dashboards to enable users to easily understand key indicators.

2.11. User Access Management Requirements

Access management aims to strengthen privacy and security and requires that specific records can be protectively marked in order to limit user access to individuals or specified groups. The need to retain integrity and authenticity in electronic records will require restriction of access to system functions according to user role.

- 1. Each user in the system should be commonly associated with a certain role, permitting the system to be aware of what data the user may access and what activities the user may perform within its context.
- 2. User authorization should be performed only after a user is authenticated by the system, i.e. the system is aware who the user is. It will be necessary to ensure that rights of access to information and to functions are granted to authorized individuals and groups, and withheld from unauthorized individuals and groups.
- 3. The system must allow the administrator to limit access to records, files and metadata to specified users or user groups. The system must allow the administrator to attach attributes to the user profile which determine the features, metadata fields, records or files to which the user has access. The attributes of the profile will:
 - a. Prohibit access to the system without an accepted authentication mechanism attributed to the user profile
 - b. Restrict user access to specific files or records
 - c. Restrict users access to particular features (e.g. read, up-date and/or delete specific fields)
 - d. Deny access after a specified date
- 4. The system must enable a systems administrator to define a set of user roles, and to assign specific functions or groups of functions to each user role.
 - a. The system must ensure that all users are allocated to one or more user role(s).

- b. The system must be able to limit access to system functions and facilities, so that all users will only be able to carry out functions which are assigned to the user role(s) of which they are member(s).
- c. The system must support the allocation of users to one or more user roles, which determine allowable user access to system functions and facilities available in the system.
- 5. The system should also support an access marking scheme, which allocates security categories to records, folders and users as a means of controlling access. The system must allow all users (unless otherwise restricted by functional role) access to all electronic folders and electronic records which are not allocated an access marking.
 - a. Where full-text retrieval of record content is available, the system must ensure that a user who is not allowed access to the record cannot receive any information about the record or folder as a result of a full-text search.
- 6. The system should provide centralized and global rights management on document libraries based on international standards
- 7. The system should authenticate the users allowing them to perform activities in the system. This involves:
 - a. User registration process, during which users provide personal details
 - b. User profiling, during which users acquire specific roles in the system
 - c. User authentication which validates the authenticity of users when accessing the system
 - d. User authorization during which users are provided with specific access rights in the system, depending on their specific roles

The system must perform user authentication every time a user accesses the system. All functional requirements for this facilitate the necessary functions the system must feature in order to appropriately recognize its users.

- 8. User management should be a directory services solution based on open industry standards such as LDAP.
 - a. The system should have capability to register users as described in functional requirements for registration requirements mentioned in this document.
 - b. The system should have capacity to store personal information of registered users.
 - c. Users may be able to update their personal information if required. This personal information may be used for several functionalities of the system, including reporting, automated notifications etc.

2.12. System Performance Criteria

The hardware selection should be based on the following:

- 1. Throughput, i.e. the number of transactions per second that can be processed by the hardware
- 2. Optimum data traffic network
- 3. Scope for future expandability / scalability
- 4. Number of concurrent users

The up time is defined in <u>SLA Section</u> of this document.

It is proposed that all the servers be located physically at a central location to be selected by the WDRA. Device redundancy should be maintained and all servers and network devices should be in high availability mode.

The servers proposed by the vendor should be able to meet the following usage criteria:

2.12.1. Total User Estimates for Proposed Solution

Warehouse Level User				
Projections of Warehouse Users/Registered Warehouses				
Current	Next Two Years	Next Five Years		
500	4000	10000		

Accreditation Agency Level User					
	Projections of Accreditation Agencies				
Current	Next Two Years	Next Five Years			
14	25	40			
	Future Projections of Accreditation	Agencies Users			
Current	Next Two Years	Next Five Years			
140	250	400			

Total number of banks is around 300 while the total numbers of different bank branches operating in India are around 100000.

2.12.2. NWR Transactions Volume Estimate

Yearly Future Projections for NWR Issuance Transactions			
Current	Next Two Years	Next Five Years	
8000	4000000	1000000	

Yearly Future Projections for NWR Pledging Transactions			
Current	Next Two Years	Next Five Years	
4800	3000000	900000	

Yearly Future Projections for NWR Endorsements Transactions			
Current	Next Two Years	Next Five Years	
3600	3000000	7500000	

2.12.3. Concurrent Transactions Estimate

The number of concurrent users is a key criterion for system design and hardware selection. There will be two types of concurrent system users:

Updating Records in System	Accessing Database for Reports
 Warehousemen and banks would have access to modify NWR details and create /update NWR records as per transactions like issuance, pledges, 	 ✓ Warehouseman would only need few annual reports at financial year closing. ✓ Accreditation agencies would need to draw

endorsements etc.

✓ Accreditation agencies and WDRA will need access to modify details of warehouses like warehouse registration details, warehouse accreditation details etc customized summary reports for all accreditation and inspection activities on monthly, quarterly and annual basis

✓ WDRA personnel will be able to fetch customized reports, for e.g. monthly details of all NWR issued, monthly details of pledged NWRs etc.

Future Projections for NWR Issuance Concurrent Transactions		
Current	Next Two Years	Next Five Years
1	139	347

Future Projections for NWR Pledging Concurrent Transactions			
Current	Next Two Years	Next Five Years	
1	78	234	

Future Projections for NWR Endorsements Concurrent Transactions			
Current	Next Two Years	Next Five Years	
1	52	130	

In addition to bankers and warehousemen performing NWR transactions, accreditation agencies and WDRA will also require access to modify registration and accreditation details in the database.

Besides, updating records warehousemen, bankers, accreditation agencies and WDRA will need to fetch reports from the centralized database. It is assumed that the warehousemen will send approximately 5 reports per month, accreditation agencies will send approximately 5 monthly reports, one quarterly report and one annual report. WDRA can be assumed to extract 10 reports every month.

There is no present data available on querying transactions. It is assumed that up to 100 concurrent querying transactions would be there. The bidder should satisfy himself regarding the user scalability based on his experience of similar applications.

These numbers for concurrency are indicative in nature. The numbers specified may vary during the course of the project and the bidder should undertake its own independent assessment to meet the desired service levels as stated in the RFP.

3. Scope of Work

3.1. Design, Development, Implementation and Testing of Negotiable Warehouse Receipt System (NWRS)

The successful bidder will prepare a web based integrated solution where WDRA officials, warehousemen, bank officials, receipt holders(transferor and transferee) and other stakeholders will be able to transact all the negotiable warehouse receipt related activities using it.

These activities as given in Section 2 <u>NWRS Solution Requirements</u> of Technical Requirements need to be completely automated. Requirements may vary considerably at the time of design & development; hence the successful bidder is required to craft out a detailed business and technical requirement

document and a detailed functional design as mentioned below in the activities to be performed by the successful bidder.

The application so developed shall also be providing the MIS reports and other workflow related activities such as reply to complaints and RTI queries. The vendor shall also provide the training support as mentioned in the RFP document.

3.2. Supply of Hardware and Software for NWRS application

The successful bidder should identify suitable hardware, software (including web servers, application software, and system software) and any other hardware and network components required for the smooth commissioning and functioning of the NWRS application – in a functional and technical manner as defined in the RFP. The successful bidder should also conduct suitable hardware sizing, software license calculations and identify any other infrastructure requirements (except hosting services) that would be required in due course of application usage. The hardware and the software should be able to support the extent of users defined in Section 2.12 <u>System Performance Criteria</u> of Technical Requirements with a variation of upto 10% at all times.

3.2.1. Application Software Requirements

The proposed software's proposed for the application should meet, at a minimum, the following interoperability standards as defined by Government of India –

Presentation Layer		
Area	Applicable Standard	Description
Mark up Languages	ISO/IEC 15445 HTML 4.01 XHTML	Since the user interface will be accessible via internet on variety of devices like PC, Laptop, PDA, Mobile, it's important that it confirms to all markup languages. XHTML represents an important shift in Web applications, replacing complicated, hard-to-maintain scripting with declarative markup, and fully separating content from presentation. HTML 4 supports more multimedia options, scripting languages, style sheets, better printing facilities, and documents that are more accessible to users with disabilities. HTML 4 also takes great strides towards the internationalization of documents, with the goal of making the Web truly World Wide
Content for Mobile Devices	XHTML Basic v1.1	XHTML is widely adopted global standard for complex hypertext web content. All documents conforming to XHTML 1.1 will be more likely to inter operate within and among various XHTML environments. XHTML content can be parsed using standard XML parsers. XHTML content can also be transformed to other XML formats by using XSLT.
Style Sheets	CSS 2.0 or higher XSL 1.1or higher	Since the system will have vast user base and it will be used from variety of devices, style sheets becomes very critical as they separate of content from presentation for different rendering methods. CSS improve content accessibility, enable consistent user experience across different devices, provide more flexibility and control in the specification of presentational characteristics, and reduce complexity and repetition in the structural content.
Document Formats	ODF 1.0 or higher PDF	Documents being integral part of the proposed application must comply to open standards to ensure the interoperability across multiple devices. All documents should be stored in Open Document Format as it is not dominated by, or tied to, a single vendor or its products and is supported in more than 50 applications.
Multimedia Formats	JPEG JPEG 2000 Part 1	Since the proposed application will be functional in different locations with varying availability of internet bandwidth, Image and graphic components in

	PNG GIF	case of glossy formats will be in JPEG (JPEG 2000 Part 1 in case of mobile/PDA platform) while PNG format will be used for lossless compression
Document Encryption	PKCS specification	

	Business Layer		
Area	Applicable Standard	Description	
Service Description	WSDL 2.0 or higher	Application should be based on service oriented architecture and all services should be described using WSDL open standards. WSDL is used to provide web services over Internet in combination with SOAP and XML Schema. The operations available on the server can be determined by a client program connecting to a web service by reading the WSDL file on the server.	
Service Delivery	SOAP 1.2 or higher	SOAP Version 1.2 is a lightweight protocol intended for exchanging structured information among machines in a decentralized, distributed network environment. The framework has been designed to be independent of any particular programming model and other implementation specific semantics.	
Service Security- User Level	Basic Security profile 1.1 or higher	As an extension of the Basic Profile, the Basic Security Profile is designed to support the addition of security functionality to SOAP messaging, in an interoperable manner. The Basic Profile includes requirements on the content of SOAP envelopes (or in Basic Profile 1.0 the format of SOAP messages). Such SOAP messages still conform to the Basic Profile but are not intelligible without decryption.	
Service Security- Message Level	SOAP Message security V 1.1	This specification is a standard set of SOAP [SOAP11, SOAP12] extensions that can be used when building secure Web services to implement message content integrity and confidentiality. The focus of this specification is to describe a single-message security language that provides for message security that may assume an established session, security context and/or policy agreement	

	Data Access Layer		
Area	Applicable Standard	Description	
Description Language	XML 1.0 Or higher	XML's design goals emphasize simplicity, generality, and usability over the Internet. It is a textual data format, with strong support via Unicode for the languages of the world.	
Schema Definition	XML Schema 1.0		
Data Presentation	XSL 1.1	An XSL style sheet specifies the presentation of a class of XML documents by describing how an instance of the class is transformed into an XML document that uses the formatting vocabulary. XSL is the preferred style sheet language of XML, and XSL is far more sophisticated than the CSS used by HTML.	
Data Conversion	XSLT 2.0	XSLT is a language for transforming XML documents into other XML documents. XSLT is designed for use as part of XSL. XSLT 2.0 also includes optional facilities to serialize the results of a transformation, by means of an interface to the serialization component	
Content Navigation	X Path	XML Path Language (X Path) is a query language for selecting nodes from an XML document and also can be used to compute values from the content of an XML document. X Path has a distinctive feature, the path expression, which provides a means of hierarchic addressing of the nodes in an XML tree.	
RDBMS Query Language	ISO/IEC 9075:2008 /SQL: 2008 or higher	SQL is designed to manage data in Relational Database Management Systems. ISO/IEC 9075 defines the SQL language. The scope of the SQL language is the definition of data structure and the operations on data stored in that structure.	

Data Layer		
Area	Applicable Standard	Description
Character Encoding	Unicode 5.1.0	Unicode is a 16 bit Character Encoding standard that is widely recognized all over the world and also supporting Indian languages, it will ease localization applications for all the constitutionally recognized Indian languages.
Fonts	Open Font Format	OFF fonts allow the handling of large glyph sets using Unicode encoding. It provides single International Standard to comply with UNICODE data storage ensuring data portability across various applications and platforms. OFF is a smart font which has built- in script composition logic.

Products adhering to the above standards may be used to develop the NWRS.

In addition, any of the products/platforms proposed for the NWRS should be in use in at least 3 applications of similar nature in the central or state governments, public sector undertaking or autonomous bodies.

3.2.2. Hardware Requirements

Any of the hardware products proposed for the NWRS should be in use in at least 3 installations of similar nature in the central or state governments, public sector undertaking or autonomous bodies. Also, the hardware proposed should have been hosted for other applications at data centers hosted by BSNL or NIC or State Data Centers.

The hardware platform proposed should not be end of life, and manufacturer support should be available for at least 3 years post Go Live.

3.3. Supply of Hardware at Data Centre

The successful bidder needs to provide requisite servers and other required hardware to host the NWRS at the data centre decided by WDRA. The Bidder should clearly specify various hardware and software systems at both DC and DRC, which shall be part of the entire application suite implementation. This should include version numbers, patch details, etc.

3.4. Operations and Maintenance of Application and IT infrastructure

The successful bidder will host the application at the data center finalized by WDRA. The successful bidder would provide the operations and management support for NWRS and IT infrastructure (servers) provided, for 3 years after the successful Go-live of the application. The successful bidder would provide all services (including but not limited to) related to system backup and restore, database administration and tuning, bug fixing, patch updates for software and operating system.

3.5. Man power

The successful bidder needs to provide software developers as per requirement of WDRA for a period of 3 years post successful Go-live of the application to carry out any customization or bug fixing in NWRS as and when required by the WDRA.

3.6. Hosting Services (Optional)

The bidder may indicate if it could provide hosting services for the NWRS application also. In case the bidder does have the capability, it should also provide in its proposal, the details of hosting services

provided for applications for any central or state government agencies. The hosting services unit should be ISO27001 certified.

S. No.	Item/Component	WDRA Responsibility	Successful bidder Responsibility
1)	Software (NWRS)	The IPR of the developed solution along with the source code will vest with the WDRA.	The successful bidder will provide the complete NWRS.
2)	Data Centre Hosting	WDRA will decide on the location of the data centre where the application will be hosted. The cost for collocation services will be borne by the WDRA. While planning for data centre, disaster recovery planning should also be done with the data centre provider.	The successful bidder will assist if required by WDRA in deciding about data centre place & Provider. The successful bidder will also provide all technical details and requirements related to hosting.
3)	Hardware	WDRA will own the servers provided by the successful bidder. Collocation services would be provided by the hosting services provider chosen by WDRA.	The successful bidder will provide the requisite servers, racks and other hardware required to collocate the applications at the data centre, and the DR site. The cost of procuring, installation, configuration and maintenance of servers is the responsibility of the successful bidder. Server cost is to be borne by the successful bidder. Its successful bidder's responsibility to successfully run the NWRS application as per the architecture proposed. Hence the successful bidder will provide WDRA the list of hardware if any required other than servers.
4)	Network	Collocation services would be provided by the hosting services provider chosen by WDRA	The successful bidder will ensure that the application is available over internet and VPN for the users
5)	Bandwidth	Bandwidth as required will be provided by WDRA from the hosting center.	The successful bidder will assist WDRA in identifying the right bandwidth required for NWRS to run successfully.
6)	Maintenance of Software	Not Applicable	Maintenance of NWRS software is the responsibility of the successful bidder for over the period of 3 years post Go Live.
7)	Maintenance of hardware	Provide access to the data center for bidder's personnel(upto 2 in number)	
7)	Man power (Software Developers)	These developers will be used by WDRA for custom development work of NWRS.	The successful bidder needs to provide software developer as and when required for a period of 3 years post successful Go Live. The cost will be borne by the successful bidder.

4. Responsibilities of WDRA and Successful Bidder

5. Activities to be performed by Successful Bidder

5.1. Project Planning

- 1. In close cooperation with the WDRA, the successful bidder shall develop a project charter encompassing the activities specified in the contract. The contents of the project charter shall be as follows:
 - a. Project organization and management plan
 - b. Design and development plan
 - c. Pre-commissioning, operational and user acceptance testing plan
 - d. Delivery and installation plan
 - e. Training plan
 - f. Risk management plan
 - g. Sustenance plan
 - h. Warranty service plan
 - i. Task, time, and resource schedules
 - j. Technical support plan for acceptance, processing of applications
 - k. Technical and operational process which must include (but not limited to) detailing on methods, tools, techniques etc.
- 2. The successful bidder will prepare and submit an inception report, which will serve as the foundation document for all activities related to the project. Additionally, the inception report must cover the risks the bidder anticipates and the plans they have towards their mitigation. Inception report should also cover the module implementation cycle which describes the plan for the modules development.

5.2. Requirement Analysis and Design

- For the specified set of modules, a high-level analysis of processes has already been performed, details of which are provided in Section 2 <u>Functional Requirements</u> of Technical Requirements. The successful bidder will need to go through functional and technical specification provided in the Technical Requirements and Detailed Project Report. The successful bidder must do a comprehensive discussion with WDRA and other stakeholders to get more details on the same wherever necessary to ensure that the requirements of WDRA are covered in the system design they conduct and later implemented in the NWRS.
 - a. The successful bidder shall execute the basic and detailed design and the implementation activities necessary for successful installation of the system in compliance with the provisions of the contract or, where not so specified, in accordance with good industry practice.
 - b. The successful bidder shall be responsible for any discrepancies, errors or omissions in the specifications, drawings, and other technical documents that it has prepared, whether such specifications, drawings, and other documents have been approved by the WDRA or not, provided that such discrepancies, errors, or omissions are not because of inaccurate information furnished in writing to the successful bidder by or on behalf of the WDRA.

- 2. Having conducted a comprehensive analysis of the requirements for WDRA, the successful bidder would need to prepare an elaborate Business Requirements Document and System Design for the NWRS.
- 3. The system design should give the complete architecture of the proposed NWRS. It should include, but not limited to:
 - a. All data base structures and detailed description of tables.
 - b. Naming conventions followed for the tables.
 - c. Data flow diagrams (DFD's) & entity-relationship (ER) diagrams.
 - d. Details of validation rules and constraints (integrity/check/referential etc.) to be applied.
 - e. Formats of all input (data entry) screens
 - f. Format of all reports that would be generated by WDRA
 - g. Processing logic used for all reports and functions
 - h. Access control mechanisms, data security and audit trails to ensure that databases are not tampered or modified by unauthorized users.
- 4. The successful bidder should analyze WDRA's requirements for NWRS and discuss the same with WDRA. Post validation of the solution requirements with WDRA & study of RFP, the design for the same should be prepared. The successful bidders must consult a few solution designs of other organizations worldwide operational in the agriculture warehouse receipt finance and trade sector and propose a progressive solution design for WDRA.
- 5. The successful bidder is encouraged to get users' involvement in this stage when they are finalizing all design components including the user interfaces, the mode of data entry, storage and retrieval, outputs reports, queries and the application design as a whole.
- 6. Each solution module mentioned in the solution needs to be web-enabled so that users are able to access, interact and transact with the system through the portal itself. Alternatively, for users within WDRA offices, interfaces that do not go through the portal also need to be provided.
- 7. Based on the requirements analysis conducted above, the successful bidder must be able to undertake a detailed design of a normalized database for the solution.
- 8. The NWRS design must be such as to require the minimal installation, if at all, at the user's end, besides the internet browser.
- 9. The NWRS to be designed and developed by the successful bidder would have standard interfaces. The successful bidder should ensure that the designed software provides Application Program Interfaces (API) to ensure maximum interoperability.
- 10. WDRA might incorporate data warehousing and data mining solutions at a later date, and the data structure should be designed keeping such future needs in consideration
- 11. The successful bidder shall develop a detailed security policy and supporting procedures for the NWRS application and obtain WDRA approval

5.3. Development and Testing

5.3.1. Development

- 1. Development, integration and customization of the NWRS as per the functional, performance, scalability, availability and security requirements specified in the RFP
- 2. Test the NWRS at various levels including internal testing, user acceptance testing to validate the correctness and completeness of the application with respect to the requirements
- 3. Resolution of defects/bugs found in the testing phase
- 4. Preparation of test plans and test cases and get them validated by the WDRA.

- 5. Perform software design, software coding, testing (unit testing, integration testing and others), and submit the results of all the testing that has been carried out.
- 6. Provide status reports and participate in status reviews
- 7. Use of on line bug tracking tool to track and close bugs with WDRA having access to it
- 8. Provide all necessary documentation including test cases, test plan and defect logs
- 9. Deploy a software development methodology that ensures rapid development in such a way that the stakeholders are continually involved in the development process, and at least two cycles of iteration are allowed before finalizing the components of the NWRS.
- 10. Start development of preferably all of the modules in parallel instead of developing one module at a time, so that system can be developed as per the implementation schedule.
- 11. Provide and deploy different separate teams, one for each functional area and an additional separate team which will work on common / integration aspects. The WDRA may also appoint one coordinator for each functional area to support the successful bidder during the development of the system.
- 12. From an integration perspective, successful bidders must take into account necessary interfacing requirements (both at the application and data level) among the modules and the information systems. If an interfacing needs to be done with a module that is scheduled for development at a later date (outside the duration of this assignment), appropriate interfaces must be provided so as to effect the later integration as smoothly as is possible.
- 13. The following need to be borne in mind while designing and developing the application(s):
 - a. Systems must be designed with a Graphical User Interface (GUI)
 - b. System should have interfaces in English and Hindi. Future scope may be extended to other national languages.
 - c. Custom developed applications must conform to open standards.
 - d. Industry standards and norms should be adhered to for coding during application development to make debugging and maintenance easier. Codes need to be commented very lucidly
 - e. In case standard software components/modules are used for developing the NWRS, it is important to isolate all customizations into separate modules from the purchased software itself to improve the ability to upgrade and move to new releases as required over time.
 - f. Business rules should be platform independent
 - g. Software components, tools and libraries should be purchased whenever possible, allowing developers to focus on the development of customized business rule components.
 - h. Object oriented programming methodology must be followed to facilitate sharing, componentizing and multiple-use of standard code.
 - i. Design a flexible data infrastructure that can accommodate rapid changes in data models based on changes in business requirements or database technologies.
 - j. Perform benchmarks tests on the databases before finalizing the database design

5.3.2. Unit Test

Each module or component should be fully tested independently before integration.

5.3.3. System Test

- 1. Application Functional Testing : Validate whether the application meets the specified functional requirements covering the work flows, navigations, and business and data validation rules for the defined user categories with access rights.
 - a. All specified functionality should exist. This testing verifies the as-built program's functionality and performance with respect to the requirements for the software product.
- 2. Defect Test: Test software defects before implementation
- 3. Application Usability Testing: Determine if proposed system is likely to be used by users of different levels of computer knowledge. It shall include systematic observation under controlled conditions and analyzing them by using defined international standards which recommend extensive user interaction and analysis of user behavior for a defined task.

5.3.4. Security test

All requirements mentioned in Section 2.9 <u>Security Requirements</u> of Technical Requirements would need to be tested and reports provided on the same.

5.3.5. System Integration Test

- 1. Testing components and component integration
- 2. Testing System Interfaces: After each system has been fully integrated to create a larger system, each system or sub-system must have a defined interface which will be used to call another program component
 - a. Parameter interface: Data and function references are passed from one component to another.
 - b. Procedure interface: One sub-system encapsulates a set of procedure which is called by other sub-system
 - c. Message passing interface: One sub-system request a service from another sub-system.
- 3. Validation (Completeness)
- 4. Robustness Testing
- 5. Testing for 24x7 availability
- 6. Error Detection & Recovery Testing
- 7. Performance Testing : Measuring response time, throughput and availability along with resource utilization
- 8. Data Conversion (If applicable)

5.3.6. Test Documentation

Test procedures, test data, and test results should be documented in a manner permitting objective pass/fail decisions to be reached. They should also be suitable for review and objective decision making subsequent to running the test, and they should be suitable for use in any subsequent regression testing. Errors detected during testing should be logged, classified, reviewed, and resolved prior to release of the software. Software error data that is collected and analyzed during a development life cycle may be used to determine the suitability of the software product for release for installation. Test reports should comply with the requirements of the corresponding test plans.

The acceptance tests must demonstrate that the successful bidder has met each and every requirement specified within the contract and has delivered an effective operational system.

1. Acceptance Milestones- The acceptance test process will involve:

- a. The successful bidder and WDRA signoff the final acceptance after the installation of system.
- b. The successful bidder and WDRA signoff the acceptance test result sheet (to be provided by the successful bidder).
- 2. Location of Acceptance Tests All acceptance tests will be performed at appropriate offices.
- 3. Acceptance Test Design and Execution All acceptance test criteria shall be prepared by bidder and finalized by the WDRA. The test criteria should be comprehensive to address all aspects of testing the new systems. Extensive testing shall be carried out by the User Representatives from WDRA.

5.4. Procurement, Supply, Test, Implement and Support of the Hardware Infrastructure

5.4.1. Identification of Hardware and software

The following considerations should be borne in mind for the hardware components design and specifications:

- 1. Maintainability, reliability and robustness of the hardware equipment's is more important than the 'state of art' technology
- 2. Bidder needs to ensure uniformity in the platform proposed for all applications.
- 3. Components specifications should take care of future growth in traffic and expansion of services such as voice and video and for enhancement of existing service on new delivery channels.
- 4. With WDRA's dependence on the NWRS being critical, the NWRS should be designed in such a way as to avoid a single point of failure. The disruption in one area shall not affect others and the entire system should not fail.
- 5. Compatibility amongst the different components being developed should be ensured.
- 6. The application layer must be spanned over at least two different servers for load balancing.
- 7. The bidder shall prepare list of all the software proposed including off the shelf software and the system software and also all necessary documentation.
- 8. The Bidder shall ensure all the requirements of the application suite (including third party applications) and RDBMS are taken care of with required level of OS hardening.
- 9. The hardware proposed must be fault tolerant. The Bidder must provide the details of fault tolerance features proposed at all levels of servers
- 10. High availability should be built in within the system installed in the DC. Clustered systems should be used wherever applicable
- 11. The servers should not have a single point of failure, and must have the RAID controller which supports RAID level 0, 1 and 5 RAID protection.
- 12. Database servers should be RISC/EPIC processor based servers with processor clock speed of at least 1.6 GHz or above. Application servers should be X-86/RISC/EPIC processor based servers with processor clock speed of at least 1.6 GHz or above.
- 13. The servers should have dual power supply capable of running on either or both the power supplies.
- 14. The servers should have the capability to balance the load across multiple HBA interfaces in active-active mode and seamless failover without any data corruption or Application/Database crashing. Also they should have the capability to support storage arrays of all leading storage vendors including, but not limited to EMC, Hitachi, HP, IBM, Network Appliance, SUN, etc

- 15. The bidder should provide a storage design, which should support at least 5 years (going forward) of data requirement. It should have Minimum Capacity of at least 1 TB on Raid 5, scalable up to 5 TB with latest available HDD capacities.
- 16. Storage requirements for the application suite will have to be assessed by the Bidder and the storage solution shall be sized and procured accordingly.
- 17. The bidder would need to provide servers and other required hardware for both data center as well as Disaster Recover (DR) site.
- 18. The Bidder is required to provide the network schematic, network architecture of the proposed solution for connectivity. The Bidder shall submit the network plan along with the technical proposal as per their proposed solution.
- 19. The Bidder should provide one set of hardware which shall be shared for testing (20 users) and Training (25 users). Two separate instances are to be created for Testing and Training requirements. The bidder may choose to rationalize the server sizing in the Test (staging) & Development environment considering the nature of load on the environment. Non-production environment (Development and Quality) must be provisioned outside the production servers.
- 20. For any COTS products it is necessary for bidders to obtain certification from the respective OEMs that the proposed infrastructure is sufficient for the specified number of users and fully meets the performance and scalability requirements including the increase in number of users and volume of transactions over a period of 3 years during the course of the NWRS project. <u>Any</u> <u>bids without such certification shall be liable for disgualification</u>.

The bidders have to perform an independent assessment of the requirements for establishment of Test (Staging) & Development Environment and IT Hardware at the Data Centre/DR site. Based on the assessment the bidder needs to provide the detailed BOM proposed in their technical proposal in line with the requirements of the project and performance on service level agreements. The proposed hardware shall be scaled up / upgraded by the successful bidder as per the requirement of the performance on the service levels at no additional cost to the WDRA.

5.4.2. Procurement and Supply of hardware and software

The successful bidder shall procure the servers and other hardware as required and given as part of the successful bidder's response. The successful bidder shall note that the specification provided is the minimum requirement and the successful bidder shall procure better equipment if it is required to meet the service levels mentioned in the RFP. The successful bidder should also provide the servers and hardware for the DR site, as proposed in his solution. All system software licenses, hardware and application licenses would have to be taken in the name of WDRA.

5.4.3. Inspections

- 1. Factory Inspections: The successful bidder must provide the factory inspection report for quality assurance as per prevailing industry standards and practices for each type of item. The commodities will be accepted only after verifying the factory inspection report by WDRA.
- 2. Inspections following delivery: WDRA will conduct a thorough physical inspection of all the products delivered to ensure that they arrive at the sites in good condition and are free from physical damage including but not limited to crushed or broken equipment's, missing seals, opened packages and incomplete shipments.
 - a. WDRA reserves the right to return the products to the successful bidder at the successful bidder's expenses. Physical inspection of hardware will also include physical checking, unpacking and counting of the delivered equipment by WDRA in presence of

the successful bidder. These equipments will only be acceptable as correct when each received item corresponds with the checklist that will be prepared by the successful bidder prior to shipment. Any shortfalls in terms of number of items received may render the delivered equipment's incomplete.

- 3. Should the inspected or tested components fail to conform to the contract, the WDRA may reject the component(s), and the successful bidder shall either replace the rejected component(s), or make alterations as necessary so that it meets the contract requirements free of cost to the WDRA.
- 4. WDRA may require the successful bidder to carry out any inspection and/or test not specified in the Contract, provided that the successful bidder's reasonable costs and expenses incurred in the carrying out of such inspection and/or test shall be added to the contract price. Further, if such inspection and/or test impede the progress of work on the system and/or the successful bidder's performance of its other obligations under the contract, due allowance will be made in respect of the time for achieving Go-live and the other obligations so affected.
- 5. If any dispute or difference of opinion shall arise between the parties in connection with or caused by an inspection and/or with regard to any component to be incorporated in the system that cannot be settled amicably between the parties within a reasonable period of time, either party may invoke the process of settlement of disputes, starting with referral of the matter to the arbitrator.

5.4.4. Pre-commissioning Tests

In addition to the successful bidder's standard check-out and set-up tests, the successful bidder (with the assistance of the WDRA) must perform the following tests on the system before installation will be deemed to have occurred and the WDRA will issue the installation certificate(s)

- WDRA requires thorough and well-managed tests methodology to be conducted. The bidder must build up an overall plan for testing and acceptance of system, in which specific methods and steps should be clearly indicated and approved by WDRA. The acceptance test of system will be defined by the bidder, agreed and approved by WDRA and include all the necessary steps to ensure complete functionality, operation and performance of the system.
- 2. All level of testing will be conducted at appropriate sites to be defined by WDRA.
- 3. Testing must demonstrate that the new system should satisfy the technical performance and system functional requirement criteria, performs according to detail functional requirements, meets the basic system concepts, provides right information to each user group or provide the efficient system navigation to process various queries or process transactions
- 4. The successful bidder would need to conduct (a) unit testing and integration testing of the NWRS based on test cases developed by bidder and validated by WDRA, (b) coordinate & follow up with WDRA to ensure completion of data entry so as to facilitate the unit and integration testing of all functionalities of the solution, and (c) training of the departmental staff and other stakeholders on the continued usage, maintenance and enhancement of the solution. Only upon successful completion of the three tasks above, will the implementation move into the next stage.
- 5. The successful bidder must outline the methodology that will be used for testing the system and define the various levels or types of testing that will be performed for system.
- 6. The successful bidder must provide necessary checklist/documentation that will be required for testing the system, describe any technique that will be used for testing for system, and describe how the testing methodology will confirm to functional and technical requirements.

7. The successful bidder must indicate how one will demonstrate to WDRA that all applications installed in the system have been tested. The successful bidder will be issued an installation certificate as per the format attached in the sample forms after successful installation.

5.4.5. Implementation of hardware and servers at Data Centre

The successful bidder shall procure the servers and other hardware as required and given as part of the successful bidder's response. The successful bidder shall note that the specification provided is the minimum requirement and the successful bidder shall procure better equipment if it is required to meet the service levels mentioned in the RFP.

The successful bidder will provide the requisite servers and other hardware at the data centre of the hosting service provider. The cost of procuring, installation, configuration and maintenance of hardware is the responsibility of the successful bidder.

The successful bidder, in close coordination with Hosting service provider team shall be required to facilitate the necessary hardware set up at Data Centre (Tier III) that can suitably meet the requirements of performance, security, scalability and availability of system. The Data Center would provide the following:

- 1. Secure hosting
- 2. Standard technologies
- 3. Guaranteed service levels
- 4. High quality support, operation and monitoring of NWRS applications
- 5. Data and Application availability seven days a week twenty-four hours a day
- 6. Centralized network management and operations capability
- 7. Facility for centralized management of enterprise client/server systems
- 8. Custom Security options, Multiple security levels
- 9. Backup and Archival Services

5.4.6. Establishment of Disaster Recovery Center (DRC)

The successful bidder in close coordination with hosting service provider team shall be required to facilitate the necessary hardware set up at DR Data Centre (Tier III) that can suitably meet the requirement of performance, security, scalability and availability of the application.

- 1. The successful bidder is required to provide IT hardware, software for DRC
- 2. The responsibility shall include setting-up the IT infrastructure. The successful bidder shall also provide staff, technical and supervisory, in sufficient numbers to operate and manage the functioning of DRC at desired service levels.
- 3. DR Hardware and Software should be 50% of DC and the storage should be 100% of the DC.

The successful bidder is expected to provide all necessary equipment's to run the system (except the collocation services at the Data Centre which will be procured by the WDRA). In case, it is identified that certain components are required but not listed by the successful bidder in the proposal, bidder will procure the same free of cost for WDRA.

For uninterrupted operation of NWRS system, certain fallback mechanisms and Disaster recovery site are to be developed. The establishment of such facilities enhances the operational efficiency of the

department. The DR site for NWRS is situated at an alternative location (NIC/hosting provider Location) and it is recommended to have a "WARM" site.

In case of a disaster, the users should be able to connect to DR site and work as the production site within the latency specified in the SLAs.

5.5. System Acceptance Testing

5.5.1. Installation & Configuration Testing

- 1. The ease of installation will be checked
- 2. The installation & configuration will be checked as per the delivered document.
- 3. Where installation counts are applicable, the number of installations specified will be tested. The system will be checked for a higher number of installations than specified, also to be uninstalled to check if the installation count is reduced

5.5.2. Operational Acceptance Tests

Successful completion of the contract will be gauged through a series of formal acceptance tests performed on all aspects of the system/sub systems as mentioned below:

- 1. The successful bidder must host the services from data centre for NWRS. WDRA would provide the quality of service indicators and other performance parameters adequately in advance to the successful bidder.
- 2. The integration should be completed before the official launch of the application.
- 3. In the user acceptance testing phase, successful bidder will have to manage and roll out a beta stage where the NWRS will be made available and restricted only to the users in WDRA through an appropriate mechanism on the web, and conduct user acceptance testing of the NWRS based on test cases developed by the successful bidder in consultation with WDRA and validated by WDRA. Based on the test results, required changes will be carried out and tested. Post this; the NWRS through the Internet will be officially launched.

5.5.3. Acceptance Test Responsibilities

- 1. WDRA personnel responsible for tests will also be responsible for the final rating of all acceptance test results. However, the test cases have to be prepared by the successful bidder in consultation with the WDRA personnel.
- 2. The successful bidder will be responsible for correcting all faults found during the user acceptance process at no extra cost to WDRA.
- 3. The successful bidders should describe their preferred approach to user acceptance testing. This will include a description of the proposed acceptance testing and/or test levels, the proposed staffing and its organizations, responsibilities, control procedures, documentation and ratings.
- 4. At the end of the user acceptance period, WDRA will acknowledge user acceptance in writing to the successful bidder upon completion of the following:
 - a. All required activities as defined in the bid document including all changes agreed by WDRA and delivered by the successful bidder and accepted by WDRA
 - b. All required system functionality as defined in the bid document including all changes agreed by WDRA and delivered by the successful bidder and accepted by WDRA
 - c. All required documentation as defined in this bid document including all changes agreed by WDRA and delivered by the successful bidder and accepted by WDRA

- d. All required training as defined in this bid document including all changes agreed by WDRA and delivered by the successful bidder and accepted by WDRA
- e. All identified shortcomings/defects in the systems have been addressed to WDRA's complete satisfaction
- 5. The successful bidder must agree to above criteria for complete system acceptance and further agrees that it will provide without additional charge to WDRA and in a timely manner, all additional services and products not identified and accounted within the proposal as may be necessary to correct all problems which are preventing acceptance.
- 6. In order to accept the system, WDRA must be satisfied that all of the work has been completed and delivered to WDRA's complete satisfaction and that all aspects of the system perform acceptably. The functional/logical acceptance of the system will only be certified when the proposed system is installed and configured according to the design and that all the detailed procedures of operating them have been carried out by the successful bidder in the presence of WDRA staff

5.6. Documentation Requirements

5.6.1. End-User documents

Documentation will be supplied and maintained by the successful bidder during the project. The ownership of all documents, supplied by the successful bidder, will be with WDRA. The electronic copies will be supplied with all the documents and manuals, required for operating and configuring the system. The documents have to be provided in English and Hindi and must include at least:

- 1. User manual (both online and paper copies) providing detailed instructions on how to use the software. In addition, it describes how to access, submit inputs to, and interpret outputs from the application
- 2. System installation guide including the configuration of the supplied infrastructure.
- 3. User will have the rights to duplicate the hardcopy and soft copy for the documents created by the successful bidder without any financial and legal implications
- 4. NWRS training manual and computer based training (CBT) for all different types of users

5.6.2. Technical Documents

The successful bidder shall supply operation and maintenance manuals for all the deliverables. These shall be in such details as to enable WDRA to operate, maintain, adjust and fix the system etc. The manuals etc. for all deliverables shall be in English and Hindi and in soft and hard copy and equal to the number of the deliverables.

Indicative list of documents that will be supplied during the different stages of the project are

- 1. Integrated project charter
- 2. Inception report
- 3. NWRS Design Document (DD) consisting of the following:
 - a. Business requirements document
 - b. Validated functionality requirements
 - c. Validated system requirements specifications and customization requirements specifications
 - d. High level design
 - e. Application infrastructure design

- f. Software architecture design
- g. Enterprise interface specifications
- h. Software implementation plan
- 4. Server side detailed hardware specifications including related networking components
- 5. Software development document which will contain documentation pertaining to the development of each unit or module, including the code/software, approvals, and any other items that will help explain the functionality of the software.
- 6. Unit and integration testing plan and procedure
- 7. Unit and integration testing completion report including all the information used for test conduction provide the actual test data and files used.
- 8. Detailed training plan
- 9. Pilot implementation report
- 10. User acceptance testing plan and procedure
- 11. User acceptance testing completion report including all the information used for test conduction provide the actual test data and files used
- 12. Training completion report
- 13. Operational procedures manual
- 14. Go-live/ launch completion report
- 15. Prepare a detailed System administration manual, Data administration manual, and operational manual, which shall be used by WDRA technical employees to run the system
- 16. Contingency plan document containing emergency response procedures; backup arrangements, procedures, and responsibilities; and post-disaster recovery procedures and responsibilities
- 17. Exit management plan
- 18. Helpdesk documentation based on the findings and issues form the handholding period

The successful bidder must ensure that all solution components being developed are thoroughly documented with comprehensive manuals and adhere to standard methodologies in software development as per ISO and/or CMM models. The documents including but not limited to are

- 1. Quality assurance plan documenting the planned and systematic pattern of all actions necessary to assure confidence that the software developed will conform to the NWRS functional and technical requirements.
- Interface control document documenting the interface characteristics of one or more systems and documents agreements between interface owners. It contains information on both the physical and data element requirements that are necessary to make the transfer of information between systems feasible.
- 3. Test plan containing information on the software test environment to be used for independent testing, the test cases to be performed, and the overall testing schedule. This includes methodology, schedule, resources, tools, procedures, environment definition, test cases, and software test results.
- 4. Systems manual detailing the data structure, table, forms and report structures.
- 5. Installation and maintenance manual for the servers and other hardware
- 6. Operations manual providing instructions for installing the application, troubleshooting, interpreting message logs, and FAQs (Frequently Asked Questions).
- 7. Trouble shooting guide/ handbook for helpdesk which describes the various trouble shooting methods.

5.7. Training:

The bidder must provide the training and documentation in the following areas:

- 1. End user training for WDRA and other users of the system including but not limited to bank officials, accreditation agencies and warehousemen. The location for the trainings will be decided by WDRA post the signing of the contract.
- 2. High end technical training including training on application and database management, system administration etc. to a select group of technical staff as designated by the WDRA.

Following activities needs to be performed by the bidder as part of documentation:

- 1. Defining overall training requirements in consultation with the WDRA
- 2. Preparation of training plan, schedule etc.
- 3. Preparation of training guides / user manuals for the application and installation manual & administration manual
 - a. Documentation to be provided to the WDRA in electronic medium and booklet in binding form.
- 4. The successful bidder should devise an approach and plan to provide training, and also devise an appropriate model for assessing the efficacy of the imparted training. The detailed training plan must be provided in the bid.
- 5. The successful bidder is expected to clearly specify the following
 - a. Training courses that it intends to deliver
 - b. Brief description of those courses along with their estimated duration
 - c. Method of training delivery
 - d. Mechanism used for judging the entry and exit profile of a different users of the solution before and after attending each training course, self-evaluation modes being proposed and feedback mechanism to be adopted.
- 6. WDRA will assess the same for quality, relevance and comprehensiveness of the training materials / tools being used.
- 7. The successful bidder should devise different type of training courses for different set of users like WDRA officials, accreditation agencies, bank officials and warehousemen. Bidder would also need to do the same for helpdesk support staff.
- 8. Training material/kits to be used should be proposed in the bid, and the same should be arranged by the successful bidder during training provision.
- 9. Training should be provided to not less than 5 users per department per module.
- 10. Training delivery will happen at WDRA office / sites as per the convenience of WDRA. This will happen in logically made groups of attendees and will be finalized by the bidder in consultation with the WDRA.
- 11. The successful bidder should ensure that the knowledge transfer to WDRA happens effectively post training, during the project implementation and maintenance phase as well

5.7.1. Training and Training Materials:

The successful bidder should perform the following tasks as part of the training to WDRA. The bidder has to give the training as per the following criteria:

User Type	Training Details	Indicative number of users

End User	NWRS Usage	200
	Complete overview of all modules	
	 Detailed training on user specific modules 	
WDRA Technical Support	 Application usage Defect tracking and resolution Troubleshooting Application installation and parameter tuning Application design, logic and usage 	5
	 Configuration management Performance tuning of applications Language used for coding 	
Database Administration Support	 Database installation and administration Security maintenance Parameter tuning Creating and maintaining the database objects Backup/recovery/restart procedures System start-up/shutdown procedures Data conversion, migration and validation The successful bidder should provide adequate training to WDRA personnel for backup related activities. 	2
Management Group	 Application usage MIS reports and analysis Query generation Defect prevention Quality management system 	10
WDRA Helpdesk	TroubleshootingAdministrative tasks	5

5.8. Go-live

The application would be considered go-live only when

- 1. The implementation and testing of location hardware has been completed and signed off by WDRA.
- 2. The location connectivity and all in-scope application usage is tested at a minimum of 10 warehouses, banks and WDRA offices and signed off by WDRA.
- 3. The location users have been trained by the successful bidder.
- 4. Location users are able to pass transactions in the new environment.

The application solution implemented by successful bidder would be deemed to be completed when all the following conditions are fulfilled and acceptance/sign off is obtained from WDRA on the same:

- 1. Validation of all license certificates against bill of material listed in the commercial proposal.
- 2. Sign off on user and system configuration manuals, and all other deliverables as mentioned in this RFP
- 3. User acceptance testing and sign off on the system functionality.
- 4. Validation of data migration results.
- 5. Training provided to all identified employees.
- 6. Post implementation support would be deemed to be complete if no R1 incident/problem/bug is reported during the support period of three months. In case a severity 1 issue is reported during the support period, then from date of occurrence of R1 issue/bug bidder will have to continue post implementation support for another 3 months. The post implementation support can go up to maximum of six months

5.9. Operations and Maintenance

The successful bidder shall maintain and support NWRS and the supplied hardware for a period of 3 years post Go-Live, including:

- 1. Resolution of errors/bugs (if any), software updates, changes in the software that may be necessary due to legal/statutory changes etc.
- 2. Providing all software updates and patches released by the hardware OEM, update and patch management, resolution of any issues/problems with the hardware etc.
- 3. Perform patch management, testing and installation of software upgrades issued by the OEM/vendors from time to time. These patches/upgrades, before being applied on the live infrastructure of the Data Repository at DC, shall be adequately tested.

For the operations and support duration, the "Service manager" or any other resources are not expected to be working on-site. The proposed "Service manager" should be a multi-skilled professional and supported by back-end L3 support as required. The model suggested is that of remote support on call basis. In case the issue cannot be resolved remotely, the bidder's personnel are expected to travel to WDRA office/hosting site for support. The bidder however is free to deploy people at WDRA/hosting site on an ongoing basis to strengthen the operations.

5.9.1. Handholding Period

The successful bidder shall provide handholding for a period of 120 days to system users and WDRA technical staff and provide them detailed technical training of NWRS post Go-Live Phase. The technical training shall include: application installation and parameter tuning, application usage, application design and logic, configuration management, performance tuning of applications and language used for coding. The successful bidder shall also resolve the day to day issues arising out of the usage of the application by the users, assist technical staff and helpdesk users for issues relating to stakeholder user management, resolve any installation and configuration related problems of the users.

The successful bidder shall provide an Issues and Resolution document, FAQ document and helpdesk manual at the end of the handholding period.

5.9.2. Technical Support

- All the standard software and hardware shall have a coverage period of 3 years post successful Go-live date of the application. The software should have perpetual licenses in the name of the WDRA. During this period the successful bidder should provide all the spare parts, updates, upgrades, maintenance, problem resolution etc. The details of response time, problem resolution performance standards are given in the SLA section
- 2. The successful bidder must warrant that all the deliverables provided under this bid will be free from defects in design and development etc. for the warranty period. If any issues remain outstanding at the end of the warranty period, the warranty period will be extended until WDRA is satisfied with the resolution of the issues.
- 3. The successful bidder must identify a "Service Manager" who will be the primary point of contact for WDRA during the warranty period and who will have the authority to take any action necessary to resolve any warranty related issues and also is responsible for providing status report to WDRA officials as per agreed frequency. The service manager should be available on call during normal business hours.

5.9.3. Maintenance services

The warranty period is 3 years. During this period the successful bidder is responsible for the activities as per the table below:

Dimension of support	Description	Responsibility
Basic Infrastructure Services	Data center services and operations at DC/DR	Hosting services provider (NIC/BSNL/TCIL)
Managed Services for hardware	Helpdesk Services	WDRA helpdesk, escalate to successful bidder as per SLA
	Server monitoring, administration and management services	Hosting services provider (NIC/BSNL/TCIL)
	Database administration and monitoring services	Hosting services provider (NIC/BSNL/TCIL)
	Storage administration and management services	Hosting services provider (NIC/BSNL/TCIL)
	Backup and restore services	Hosting services provider (NIC/BSNL/TCIL)
	Security management services	Hosting services provider (NIC/BSNL/TCIL)
	Network management services	Hosting services provider (NIC/BSNL/TCIL)
	Configuration of application infrastructure	Successful bidder
Application related services	Application management and performance monitoring	Successful bidder, upon escalation by WDRA helpdesk
	Application performance tuning	Successful bidder, upon escalation by WDRA helpdesk
	Application enhancements	Successful bidder, upon escalation by WDRA helpdesk

In addition, the successful bidder shall be responsible for the following -

- a. Application system maintenance such as changes, modifications, bug fixing etc.
- b. Identification and resolution of application problems (e.g. system malfunctions, performance problems and data corruption etc.)
- c. All software and hardware maintenance such as upgrades, reinstallations, in consultation with WDRA
- d. Tracking the security incidents and identifying patterns if any

SLA for the post warranty (optional phase) will be same as that during warranty period.

5.9.4. Support services

The support services for the NWRS shall be provided for a period of 3 years post go-live. During this period the successful bidder shall provide bug fixing support for any system problems that may arise in the NWRS system developed. WDRA would be setting up a L1 helpdesk internally to support the users of the NWRS system. The helpdesk would be the first point of contact for the system users. They would be able to provide resolution to user queries, user access management and application related issues, using the helpdesk guides created by the successful bidder development team.

The application support service is defined by various levels at PLL as defined below:

Level 1 and 2: This level comprises of end-users (level 0) using the NWRS application. These users register the calls / incidents using the Helpdesk/phone calls. WDRA's internal support team (Level 1) interfaces with the user for completeness of information and providing resolution over the call itself. If the issue requires some administrative/configuration changes to user profiles etc, the WDRA helpdesk resolves the issue.

Level 3: All incidents that could not be resolved by the helpdesk team and attributable to the system shall be escalated to the L3 support team of the successful bidder. The helpdesk personnel would call/email the "Service Manager" for the escalation, and the SLA measurement shall start from the time of this communication. The successful bidder shall provide support based on the service level agreement defined in <u>SLA Section</u> (Section 7 of Technical Requirements).

This support level provides solutions for the requests received from Level 1 / 2. The successful bidder's support team shall monitor and accept tickets routed by Level 1/2 support team of WDRA. The successful bidder shall provide support (rectification of faults/ bugs and change management (configuration or custom developments)) for the NWRS application.

The Level 3 Support shall include the following:

Maintenance: This involves supporting the existing functionality/ Reports to the extent of resolving any errors reported in the same. The successful bidder shall address all the errors/bugs/gaps in the functionality offered by solution (vis-à-vis the FRS & SRS signed off for Project) at no additional cost during the operations & maintenance period.

Break fix support for Changes: This category of support shall include all the trouble tickets logged in for a change (configuration or custom developments) in already implemented functionality.

Service manager of successful bidder along with WDRA Project Manager will classify the calls and monitor the resolution time for each call.

5.9.5. Implementation of SLA Monitoring & Measurement System

The successful bidder shall develop an additional tool to measure performance against each of the indicators listed under SLAs specified in the RFP. The successful bidder shall ensure that proposed SLA monitoring system addresses all the SLA measurement requirements and enables calculation of eligible compensation to the successful bidder on a quarterly basis, including the rewards and penalties as specified in the SLA.

The successful bidder shall also send a monthly log of the output of the system to the PMU. Furthermore, SMS Alerts (Mobile / e-mail alerts) should be automatically triggered whenever there is any breach in the SLAs.

Officials as may be authorized by WDRA shall be allowed to access the SLA monitoring application or its components like databases, subject to such rights & privileges as WDRA may decide from time to time.

5.9.6. Change in Scope

Shall there be a change in scope, the rates proposed for additional work in Bidding Forms section shall come into force. The effort for such change of scope would be agreed upon jointly by WDRA and the successful bidder.

5.9.7. Coordination with Agencies

The successful bidder shall coordinate with various agencies and stakeholders for smooth implementation of the project like bandwidth provider, third party data Centre provider etc.

5.10. Project Reporting

The progress and other reports as specified below shall be prepared by the successful bidder and submitted to the WDRA in the format and frequency specified in this document. The successful bidder shall submit to the WDRA the following reports:

- 1. Periodic (periodicity, as specified in the approved project charter with minimum periodicity as one month) progress reports, summarizing, but not limited to:
 - a. Results accomplished during the prior period
 - b. Cumulative deviations to date from schedule of progress milestones as specified in the agreed and finalized project plan
 - c. Corrective actions to be taken to return to planned schedule of progress and proposed revisions to planned schedule
 - d. Other issues and outstanding problems, proposed actions to be taken
 - e. Resources that the successful bidder expects to be provided by the WDRA and/or actions to be taken by the WDRA in the next reporting period
 - f. Other issues or potential problems the successful bidder foresees that could impact on project progress and/or effectiveness
 - g. Quality metrics
 - h. Reports to monitor contract performance/progress with system implementation, including but not limited to: inspection and quality assurance reports, training participants test results, monthly log of service calls and problem resolutions

6. Implementation Schedule

Activity/Task	Timelines
RFP Release and Invitation of Bids	RFP Release Date
Receipt of Bids	RFP Release Date + 3 Weeks
Project Award to successful bidder	Project Award Date
Contract signing between WDRA and successful bidder	Project Start Date
Project Planning	Project Start Date + 1 Week
Requirement Analysis	Project Start Date + 4 Weeks
System Design – High and Low Level Design	Project Start Date + 8 Weeks
System design – Detailed Test Plan	Project Start Date + 8 Weeks
System Development	Project Start Date + 16 Weeks
System Testing – Unit and Integration	Project Start Date + 20 Weeks
System testing – User Acceptance and Security	Project Start Date + 24 Weeks
Go-live and Deployment	Project Start Date + 26 Weeks
Submission of Documentation	Project Start Date + 28 Weeks
Handholding Period	Project Start Date + 45 Weeks
Post Go-live Support	36 months after the final acceptance of the application
User Training	As per requirement during entire duration of the project

7. Service Level Agreements

Service Level Agreement (SLA) is the contract between WDRA and the successful bidder. SLA defines the terms of the successful bidder's responsibility in ensuring the timely delivery of the deliverables and the correctness of the same based on the agreed performance Indicators as detailed in the bidding documents. This section defines various service level indicators which will be considered by WDRA in the SLA with successful bidder.

The successful bidder has to comply with service levels requirements to ensure adherence to project timelines, quality and availability of services.

SLA	Timely Delivery		
Definition	Timely delivery of deliverables would comprise the software application, hardware and all documents that are to be submitted as part of the project deliverables		
Service Level	All the deliverables defined in the contract has to be submitted on-time on		
Requirement	the date as mentioned in the implementation schedule with no delay.		
Measurement of Service	To be measured in number of weeks of delay from the date of submission/		
Level Parameter	installation as defined in the project contract		
Penalty for non- achievement of SLA	Delay shall attract a penalty per week as per the following –		
Requirement	 For Software Application = 2 X Per week penalty For Documents = 1 X Per week penalty 		
	The total penalty would be generated by the product of the above and the number of weeks delay.		
	The penalty per week is 0.01 % of the Supply and Installation Cost up to the maximum of 5% beyond which the contract may be terminated.		

7.1. Project Delivery Related SLA

SLA	Correctness of Delivery		
Definition	Correctness of deliverables would comprise of software application, hardware and all documents that are to be submitted as part of the project deliverables. Any deliverable submitted should not have errors/defects/bugs in them.		
Service Level Requirement	All the deliverables defined in the contract have to be submitted First-Time- Right (correctness of delivery) as mentioned in the contract with minimum errors/defects/bugs (as defined below).		
	 Documents – The documents submitted to WDRA for final approval should have no errors. 		
	 Application Software – The required service level for the Application software correctness is: a. No Level 1 errors/defects/bugs in the complete application 		
	software. Level 1 errors/ defects/ bugs would be defined as the ones which have the greatest business impact wherein the user is not able to perform his/her regular work, or the output from the system is not as per the requirement.		
	 May have a maximum of 5 (Five) Level 2 errors/defects/bugs in the complete application software. Level 2 errors/defects/bugs would be defined as the ones which 		

	has medium business impact wherein the user is partially able to perform his/her regular work
Measurement of Service Level Parameter	To be measured in number of errors/defects/bugs for each of the deliverables as defined in the project contract.
Penalty for non- achievement of SLA Requirement	Occurrence of errors/defects/bugs would attract a penalty per day as per the following – 1. For Software Application = 2 X Per Bug/Error/Defect Penalty 2. For Documents = 1 X Per Bug/Error/Defect Penalty The total penalty would be generated by the product of the above and the number of bug/error/defect found in the deliverables. The penalty per bug/error/defect is 0.01% of the Supply and Installation Cost up to the maximum of 5% beyond which the contract may be terminated.

The maximum penalty at any point of time and for any period should not exceed 5% of Supply and Installation Cost as per the Commercial Bid submitted by the successful bidder post which the contract may be terminated.

7.2. System Performance Related

SLA	Application Respon	nse Time		
Definition	Application response time refers to the page load or processing time, i.e. the			time, i.e. the
	time for loading a screen or completion of any transaction of the Application.			
Service Level	The average application response time for users should not exceed the			
Requirement	following when mea	asured over the month	1:	
		tion Type	Response Time	
		o Solution	3 (X)	
	Functio	nality Screen Load	5 (Y)	
	Data Up		7 (Z)	
	Data Do	ownload	7 (Z)	
	•		esponse time for use	rs should not
		se values when meas		
Measurement of Service				
Level Parameter	reports.			(
			e used for calculation	is of average
	response time and p	•	d not be included in tl	ha calculation
	, , , , , , , , , , , , , , , , , , , ,		he successful bidder s	
			n writing for the planne	
Penalty for non-			eet the above defined	
achievement of SLA				
Requirement	requirement, then any deviation from the same would attract a penalty as % of Total Quarterly Recurring Cost as per the following –			
noquionont	· · · · ·		-	
	Response Time (N	Monthly Average)		Penalty
	Х	Y	Z	
	Between 3 & 6	Between 5 & 8	Between 7 & 10	0.1%
	Between 6 & 10	Between 8 & 12	Between 10 & 14	0.2%
	Above 10	Above 12	Above 14	0.3%*
	*For every additiona	I one second increase	e in time	
	Response Time (9	95 th Percentile Point)		
	X		Z	Penalty

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Between 6 & 12	Between 10 & 16	Between 14 & 20	0.1%
Between 12 & 20	Between 16 & 24	Between 20 & 28	0.2%
20	Above 24	Above 28	0.3%*

SLA	Application Availability		
Definition	Application availability refers to the total time when the Application available to the users for performing all activities and tasks.	is	
Service Level Requirement	The average availability of the application should be at least 99% in a month	٦.	
Measurement of Service Level Parameter Penalty for non- achievement of SLA Requirement	The above time would be calculated only for working hours during business days in a month (excluding holidays) Any planned application downtime should not be included in the calculation of application availability. However, the successful bidder should take at least 15 days prior approval from WDRA in writing for the planned outage. If the successful bidder is not able to meet the above defined service level		
	Application Availability (Monthly Average) Penalty >= 98% to < 99% 0.2% >= 95% to < 98% 0.3% < 95% 0.4% for every additional		
	0.1% drop thereof in the availability below 95%		

SLA	Transaction Success Rate (TS	R)	
Definition	It is the percentage of overall tra per month	ansactions which are completed successfully	
Service Level Requirement	The average monthly transaction	n success rate should not be less than 99%	
Measurement of service level parameter	initiated in a month	successful transactions to all transactions in a month/ Total Transactions initiated in a	
Penalty for non- achievement of SLA	Every failed or unsuccessful transaction shall attract a penalty as % of Quarterly Recurring Cost as per the following:		
	TSR	Penalty	
	>= 98% to < 99%	0.2%	
	>= 95% to < 98%	0.3%	
	< 95%	0.4% for every additional 1% drop thereof in the availability below 95%	

SLA	Supporting Hardware Availability
Definition	Hardware availability refers to the total time when the servers supporting the NWRS are up and running.
Service Level	The average availability of the hardware should be at least 99% in a month.

Requirement				
Measurement of service level parameter	Hardware Availability = [(Total server uptime in a month)/ (Total Time i Month)]*100			
	The above time would be calculated only for working hours during busine days in a month (excluding holidays). Any planned server downtime should not be included in the calculation application availability.			
	However, the successful bidder sho from WDRA in writing for the planne	ould take at least 15 days prior approval d outage.		
Penalty for non- achievement of SLA	If the successful bidder is not able to meet the above defined service level requirement, then any deviation from the same would attract a penalty as % of Quarterly Recurring Cost as per the following –			
	Hardware Availability (Monthly Average)	Penalty		
	>= 98% to < 99%	0.2%		
	>= 95% to < 98%	0.3%		
	< 95%	0.4% for every additional		
		1% drop thereof in the		
		availability below 95%		

SLA	Maximu	m Single Downtime of Sei	rver	
Definition	It is the continuo		that the service can remain unavaila	ıble
Service Level Requirement	The maximum single downtime should not exceed 4 hours.			
Measurement of service level parameter		easured as number of ho availability.	urs from first encountered instance	of
Penalty for non- achievement of SLA	If the successful bidder is not able to meet the above defined service level requirement, then any deviation from the same would attract a penalty as % of Quarterly Recurring Cost as per the following –			
		Server Downtime	Penalty	
		Between 4 to 8 Hours	0.5%	
		Between 8 to 12 Hours	1%	
		Above 12 Hours	2% for every additional	
			hour downtime in the availability of server	

SLA	Security and Incident Management SLA		
Definition	Security incidents could consist of any of the following but not limited to :		
	 Data Theft – Compromise of any kind of data through application. 		
	 Intrusion – Successful unauthorized access to NWRS resulting in loss of confidentiality/integrity/availability of data. 		
Service Level	There should be no incidents of any kind.		
Requirement			
Measurement of Service	The network should be monitored for:		
Level Parameter	• Data theft - Compromise of any kind of data hosted by WDRA.		
	 Intrusion – Successful / unsuccessful unauthorized access to the application 		
Penalty for non- achievement of SLA	If the successful bidder is not able to meet the above defined service level requirement, then any deviation from the same would attract a penalty as $\%$		

Requirement	of Quarterly Recurring Cost as per the following –				
		Incidents in a month	Penalty		
		Between 1 and 2	0.5%		
		Between 2 and 4	1%		
		Above 5	0.5% for every incident		

7.3. Support Related SLA

SLA	Syste	em Bug Resoluti	ion Time				
Definition	Time in which a complaint/issue related to hardware or application resolved after it has been reported/escalated by the WDRA/helpdesk to						
	succe	essful bidder's "S	Service Manager"				
Service Level		R1 – 100% within response and resolution times R2 and R3 – 98% within response and resolution times					
Requirement	R2 an	id R3 – 98% with	in response and resolut	ion times			
Measurement of Service	Supp	ort query should	be classified in following	g three categories.			
Level Parameter	 Severity Level 1 (R1): System issues that have the greatest business impact wherein more than 50 application users are not able to perform his/her regular work at a time. For example, unable to login to the system, online NWR generation module not working etc. Severity Level 2 (R2): System issues that have medium business impact wherein the user is partially able to perform his/her regular work, or less than 50 users can not access the system. For example, user is able to login and perform most of his normal work, but some of the features are not available 						
	ir s Work The	npact involving ettings etc. ing hours are def	cosmetic changes. Fo	iich have the least/no busin or example, change of pro on-Fri ervice as per the follow	ofile		
		Type of support call	Response Time from reporting the issue (Not more	Resolution Time from reporting the issue (Not More			
		R1	than) 2 hours	Than) 4 hours			
		R2	2 working hours	8 working hours			
		R3	4 working hours	3 working days			
Penalty for non-	Delay	would attract a	-	uarterly Recurring Costs as	per		
achievement of SLA Requirement	the fo	ollowing –					
Type of Query Penalty							
nequiement			· · · · ·	-			
nequirement		R1	10 >	X Per day Penalty			
nequirement			10 X 2 X	-			
nequirement		R1 R2 R3	10 X 2 X	X Per day Penalty Per day Penalty Per day Penalty			

For the Application availability SLA and the security management SLA, the successful bidder would get an initial period of SLA holiday, i.e. a time period for which SLAs will not be applicable (to be mutually agreed by WDRA and the successful bidder, but not more than 6 months post go-live). This time should be utilized by the successful bidder to stabilize the system, and to ensure adherence to the performance standards laid down by the SLAs.

The maximum penalty at any point of time during the warranty and support phase and for any period should not exceed 10% of Total Quarterly Recurring Costs as per the Commercial Bid submitted by the successful bidder post which the contract may be terminated.

8. Exit and Transition Management

- 1. This section sets out the provisions, which will apply when successful bidder is either not willing to renew the contract or the renegotiations to renew the contract fails or there is a termination of the contract. In such a case, WDRA may select another service provider for transition and support going forward. It shall be the duty of the successful bidder to provide the necessary transition for support to the new service provider. The new service provider shall be entitled to use the assets for the duration of the exit management period which shall be three month period from the date of expiry or termination of the Contract.
- 2. The exit management period starts, in case of non-renewal of contract, on the date when the contract comes to an end or in case of termination of contract, on the date when the notice of termination is sent to the "successful bidder". The exit management period ends on the date agreed upon by the WDRA and bidder or three months after the beginning of the exit management period, whichever is earlier.
- 3. WDRA during the project implementation phase or during the operation and management phase shall be entitled to serve notice in writing on the successful bidder at any time during the exit management period as detailed hereinabove requiring the successful bidder to provide WDRA with a complete and up to date list of the assets within 30 days of such notice. WDRA shall then be entitled to serve notice in writing on the successful bidder at any time prior to the date that is 30 days prior to the end of the exit management period requiring the successful bidder to transfer to WDRA, all right, title, and benefit of the successful bidder to the NWRS.
- 4. The successful bidder shall transfer the all the equipment in fine working condition at zero cost on the last day of the exit management period. In case of the equipment procured during the later stage of the project, the WDRA reserves the right to buy it at a mutually agreed depreciated value.
- The successful bidder shall handover all confidential information and all other related materials in its possession, including all the hardware supplied by successful bidder under this clause to WDRA.
 - a. The successful bidder shall promptly on the commencement of the exit management period supply to WDRA the following:
 - i. Information relating to the current services rendered and customer satisfaction surveys and performance data relating to the performance of sub-contractors in relation to the services
 - ii. Documentation relating to IPR
 - iii. WDRA data and confidential information
 - iv. All other information (including but not limited to documents, records and agreements) relating to the services reasonably necessary to enable WDRA, or its new service provider to carry out due diligence in order to transition the provision of the services to WDRA, or new service provider (as the case may be).

- b. Before the expiry of the exit management period, the successful bidder shall deliver to WDRA, all new or up-dated materials and shall not retain any copies thereof, except that the successful bidder shall be permitted to retain one copy of such materials for archival purposes only.
- 6. The cost of exit management should be included in the support costs as provided in the commercial bid.

Section 4 - Bidding Forms

1. Prequalification bid

Prequalification bid shall comprise of following forms:

1.1. Covering letter for prequalification bid

On applicant's letterhead

Τo,

The Warehousing Development and Regulatory Authority

Subject: Implementation of negotiable warehouse receipt system

Sir/ madam

In response to the proposal dated _____ issued by WDRA, we offer our prequalification bid to participate in the bidding process for selection of the SI for the above-referred project.

Having examined the RFP documents, the WDRA act 2007 and the rules & regulations thereof, service level agreement, etc. including addenda/ amendments to the above, for the execution of the above contract, we the undersigned offer to design, engineer, procure, construct, complete, commission and operate and maintain the whole of the said works for the term of the services agreement in accordance with the services level agreement and in conformity with the documents, service level agreement, etc, comprising the RFP.

In the capacity of the applicant for the project, we declare that we have requisite technical competence and experience and are interested in the project, should you select us for this purpose are also enclosing power of attorney for the person who is signing the bid.

We are submitting the bid as consortium and a signatory is hereby declared as the prime bidder. The other consortium partners and the activities, partners are responsible for, as per RFP are as given below

S. no	Company name	Туре	Activity as per RFP
1	< <name company="" of="" the="">></name>	Prime bidder	
2	< <name company="" of="" the="">></name>	Consortium member	
3	< <name company="" of="" the="">></name>	Consortium member	

We understand that the basis for our qualification will be our prequalification bid, and that any circumstance affecting our continued eligibility under the RFP, or any circumstance which would lead or have led to our disqualification under the RFP, shall result in our disqualification under this process.

We agree to abide by this bid for 180 days from the last day of submission of bid and the same shall remain binding upon us and may be accepted at any time before the expiration of that period. If

requested to extend the period of validity for a specified additional period, we understand that no change in the bid will be allowed for such extension and in case, we extend the validity of our bid, we will extend validity of bid security also.

We declare that we have disclosed all material information, facts and circumstances in our bid which would be relevant to and have a bearing on the evaluation of our prequalification bid and selection.

We acknowledge and understand that in the event that anything is discovered contrary to our above declarations; the WDRA is empowered to forthwith disqualify us and our prequalification bid from further participation in the process.

Yours faithfully,

Authorized signatory

Name & title of signatory

Signature

(Power of attorney to be enclosed)

1.2. Pre-qualification bid forms

1.2.1. Form P1 – Bidder profile

	Bidder profile
1.	Name & address of the bidder
2.	Location of corporate head quarters
3.	Date & country of incorporation
4.	Details of contact person (Name, designation, address etc.) Telephone number Fax number e-mail
5.	Year and place of the establishment of the company - Submit documentary proof. (Memorandum of association, Articles of Association, Registration certificate with amendments thereof)
6.	Number of years of providing solutions as required in the RFP in India. Please provide the date of first completed assignment along with necessary proof.
7.	Sales Tax and VAT registration number Submit valid sales tax registration certificate.
8.	Number of overall IT staff strength (staff performing duties of IT/software design/ development/ implementation and/or procurement, install, test, configuration of hardware and network equipment's) in India

1.2.2. Form P2 – Financial capabilities

Name of bidder :

Bidders shall provide financial information to demonstrate that they meet the requirements stated in the BDS for ITB clause 5.5 point 5. If necessary, separate sheets shall be used to provide complete banker information. A copy of the audited balance sheets/CA certificates shall be attached.

Particular	Financial inform	Financial information in INR for previous three years			
	2009-10	2010-11	2011-12		
1. Net Worth					
2.Total Turnover					
3. Turnover from IT services					

1.2.3. Form P3 – Details of experience of similar nature and complexity

Use a separate sheet for each credential.

	Name of Project					
	Country					
2.	Name of purchaser					
3.	Purchaser address					
4.	Nature of negotiable warehouse receipt system and special features relevant to the contract for which the bidding documents are issued. Check the following boxes against each project.					
	Portal development					
	□ IT/Software design/ development/ implementation for government / public sector					
	Projects in procurement, install, test, configuration of hardware and network equipment for government / public sector clients in India					
	 IT/Software design/ development/ implementation in warehousing sector All the projects shall have been awarded after January 2006. 					
5.	Contract role (check one)					
	Prime bidder					
	Management contractor					
	Partner in a joint venture					
6.	Amount of the total contract/subcontract/partner share (in specified currencies at completion, or at date of award for current contracts)					
	Total Value : Rs.					
	Sub contract : Rs.					
	Value of services provided by Rs. the bidder :					
8.	Date of award and date of completion					
11.	Special contractual/technical requirements.					
12.	Actual services provided by the bidder:					

1.2.4. Form P4 – Quality certifications

S. no.	Certification	Valid till	Copy attached – reference number
1.	ISO 9001		
2.	SEI CMMi Level 3 or higher		
3.	ISO 27001		
4.	Any other		

Number of overall IT staff strength (staff performing duties of IT/software design/ development/ implementation and/or procurement, install, test, configuration of hardware and network equipment's) in India on 31/03/12:

(Self-Certification regarding the same on a company letterhead signed by the head of HR with company seal)

1.2.5. Form P5 – No conviction undertaking

On applicant's letterhead

Date: dd/mm/yyyy

Τo,

The Warehousing Development and Regulatory Authority

Reference: Bid dated

Sir

We hereby declare:

Authorized signatory

Name:

1.2.6. Form P6 – Bid security form

This deed of guarantee is made on this_____ day of _____, 2012 at Delhi, by _____, constituted under______ and having its head office/registered office at ______ and inter alia a branch office at ______ (hereinafter referred to as "the bank" or "the guarantor", which expression shall unless it be repugnant to the subject or context hereof be deemed to include its successors and assigns) in favor of The Warehousing Development and Regulatory Authority (WDRA)

WHEREAS, the WDRA undertook the process of competitive bidding in order to select the most desirable firm/company to execute the works, for which purpose WDRA issued a request for proposal dated_____,2012 ("RFP") inviting proposals from various bidders to execute the scope of work specified therein (works);

WHEREAS, [name of bidder] (hereinafter called "The bidder") has submitted its proposal dated [date] for the execution of the works (hereinafter called "the proposal").

In the event of any breach or non-performance of any of the following terms and conditions contained in the RFP:

- 1. If a bidder:
 - a. Withdraws its bid during the period of bid validity specified by the bidder on the bid form or
 - b. Fails to accept the purchaser's corrections of arithmetic errors in the bidder's bid (if any)
- 2. In the case of the successful bidder, if the bidder fails to:
 - a. Sign the contract or
 - b. Furnish performance security.

the guarantor agrees absolutely, irrevocably and unconditionally guarantees and undertakes to pay to WDRA, a sum of rupees five lakhs, without any protest or demur and upon receipt of first written demand from WDRA, without having to substantiate its demand, provided that in its demand the WDRA will note that the amount claimed by WDRA is due to WDRA owing to the occurrence of any one or more of the conditions, specifying the occurred condition or conditions.

This guarantee will remain valid for a period of at least 30 days beyond the original validity period of bids, or at least 30 days beyond any extended period of bid validity. Any demand in respect of this guarantee should reach the bank not later than the above date.

The jurisdiction in relation to this guarantee shall be the courts at India and Indian law shall be applicable.

IN WITNESS WHEREOF the guarantor has executed this guarantee on this _____day of _____ and year first herein above written.

Signed and delivered by the above-named _____Bank by its authorized signatory as authorized by:

Board resolution passed on _____

Power of attorney dated [].

Authorized signatory

Name:

Designation:

In the presence of

2. Technical bid

Technical bid shall comprise of following forms:

2.1. Covering letter for technical bid On applicant's letterhead

Date: dd/mm/yyyy

Τo,

The Warehousing Development and Regulatory Authority

Reference: Tender number dated

Sir

We hereby declare:

- 1. We are the authorized agents/resellers of the manufacturers of the equipment proposed in our solution.
- 2. That we/our principals (manufacturer) are equipped with adequate maintenance and service facilities within India for supporting the offered system. Our maintenance and service facilities are open for inspection by representatives of WDRA.

We hereby offer to supply the equipment and provide the services at the prices and rates mentioned in the attached commercial bid.

In the event of acceptance of our bid, we do hereby undertake that:

- 1. To supply the equipment and provide services as stipulated in the RFP
- 2. To undertake the project for a period of 3 years post Go Live of the application.
- 3. We affirm that the prices quoted are inclusive of delivery, installation, and commissioning charges and all taxes.

We agree to abide by our offer for a period of 180 days from the last date of submission of bids prescribed by WDRA and that we shall remain bound by a communication of acceptance within that time.

Bid security in the form of a bank guarantee issued by _____ (bank), valid till __/_/___ (dd/mm/yyyy), for an amount of Rupees Five Lakhs is enclosed.

We have carefully read and understood the terms and conditions of the RFP and the conditions of the contract applicable to the tender. We do hereby undertake to provision as per these terms and conditions.

1. The deviations from the requirement specifications of tendered items and schedule of requirements are only those mentioned in our response

OR (Strike out whatever is not applicable)

There are no deviations from the requirement specifications of tendered items and schedule of requirements in RFP for negotiable warehouse receipt system

2. The deviations from the terms and conditions of the tender are only those mentioned in our response

OR (*Strike out whatever is not applicable*) There are no deviations from the terms and conditions of the tender.

We hereby certify that the bidder is a directorate and the person signing the tender is the constituted attorney.

We do hereby undertake, that, until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and notification of award of contract, shall constitute a binding contract between us.

Signature of bidder (with official seal)

Date Name Designation Address Telephone Fax E-mail address

2.2. Technical bid forms

2.2.1. Form T1 – details of contracts of similar nature and complexity

Use a separate sheet for each credential.

1.	Name of Project					
	Country					
2.	Name of purchaser					
3.	Purchaser address					
4.	Nature of project					
	Check the following boxes against each project.					
	Portal development					
	□ IT/Software design/ development/ implementation for government / public sector					
	Core banking/Banking correspondent/Finance sector application development and support					
	\square Warehousing/ warehousing related to PDS, food and agriculture sector application development					
	Projects in procurement, install, test, configuration of hardware and network equipment for government / public sector clients in India					
	 IT/Software design/ development/ implementation in warehousing sector All the projects shall have been awarded after January 2006. 					
5.	Contract role (check one)					
	Partner in a joint venture					
7.	Contract value					
	Total contract : Rs.					
	Value of services provided Rs.					
	Value of supplies – Rs.					
	hardware/Software					
8.	Date of award and date of					
9.	completion Number of locations where final					
5.	application is used					
10.	Number of rural/Semi urban locations					
11.	Number of users					
12	Scope of services provided Check the following boxes against each project.					
	Application development and rollout					
	□ Supply of software					
	□ Supply of hardware					
	 Ongoing support services 					
12.	Project details :					
	· · · · · · · · · · · · · · · · · · ·					

2.2.2. Form T2 - Solution description

Technical solution

The bidder shall provide their understanding of the scope of the project and WDRA requirements through the solution description matrix given below, elaborating the various lifecycle aspects- viz. design, implement, operate and maintain during their entire contract tenure. The bidder shall mention its solution for various services to be provided including operation and maintenance.

The bidder would need to capture each aspect of the lifecycle for each type of service, and explain what solution it would provide and how it would provide it. However, the bidder would need to provide a complete description of the solution and address any question over and above the listed questions in order to provide a complete picture of the solution proposed.

<u>Solution matrix</u> – Below is the technical solution requirements to be addressed by the bidder. The approach and methodology has been divided into 3 sub criteria. The bidder is required to explain in detail its solution against each of the mentioned criteria. The bidder is free to address any other appropriate questions that could provide additional information about the solution and help the WDRA gauge the bidder's level of understanding and its technical solution in a wholesome manner.

Approach and methodology				
S. no	Particulars	Details		
А	Understanding of requirements (UR)	Understanding of scope & purpose of the project		
~	Understanding of requirements (ON)	Understanding of the WDRA		
		Understanding the roles and issues of stakeholders		
		SDLC proposed, detailing done		
	Proposed approach & methodology	Risk management methodology		
в	(A&M) for application development,	Change management methodology		
D	operations and maintenance	Methodology for operations and maintenance of IT systems		
		Methodology for help desk management		
		Methodology to handle change requests		
		Application software architecture		
		Redundancy of the application and network		
		Security features of the application and network		
С	Proposed solution architecture	Scalability of the application and network		
		Integration between various modules		
		Methodology for handling the expected load of transactions		
		Hardware proposed		
D	Support strategy	Application support strategy		
		Hardware support strategy		
		Application and data backup strategy		
		Patch update strategy		
		Database administration support strategy		
E	Training and Change Management	What kind of training schedule does the bidder propose?		
	Approach	What domains would the training exercise cover?		
		Number of personnel that would be deployed for training?		

2.2.3. Form T3 – Resourcing plan

Bidder shall provide a detailed description of the hierarchy of the proposed project team:

- 1. Proposed team structure of the team to be deployed for the project. The description should include details on team hierarchy and detailed explanation of the role to be played by each member who will be part of the project
- 2. Number of manpower proposed for application development and maintenance
- 3. Roles and responsibilities of resources
- 4. Resource deployment schedule
- 5. Project manager general qualification and certifications in format below.

Proposed sample for resource deployment - bidder shall furnish details of resources for each activity

S. no.	Resource	Name of the resource	Responsibility	Time frame for deployment
	Project Manager			
	Resource 1			
	Resource 2			
	Resource 3			

Sample resource deployment schedule

Month			1				2		
Week	1	2	3	4	1	2	3	4	
Resource 1									
Resource 2									
Resource 3									
Resource 4									
Resource 5									
Resource 6									
Resource 7									
Resource 8									

<u>Resource qualifications – separate forms would need to be filled for the resources proposed for the following roles:</u>

- Project manager
- Functional expert warehouse sector
- Functional expert financial/Banking sector
- Solution architect
- Hardware and data center expert
- Application testing expert
- Information security expert

S. no	Item Details
1.	Name
2.	Current job title
3.	Experience in years.
4.	Number of years with the organization
5.	Current job responsibilities
6.	Summary of professional / domain experience
7.	Skill sets
8.	Experience in government projects
9.	Experience in similar assignments
11.	Educational background, training/Certifications

2.2.4. Form T4 – Authorization letters from OEMs

Date: dd/mm/yyyy

Τo,

<<>>

Reference: Supply of equipment/software for NWRS project

Sir,

We	, (name and a	address (of the man	nufactu	<i>urer) w</i> ho are established and reputed	d
manufacturers	of	having	factories	at	(addresses c)f
manufacturing l	<i>ocations) d</i> o hereby author	rize M/s			(name and address of the	е
<i>bidder) t</i> o bid, n	egotiate and conclude the	contract	with you a	agains	t the above mentioned tender for the	е
above equipmer	nt manufactured by us.					

Yours faithfully,

For and on behalf of m/s _____

(Name of the manufacturer)

Signature

Name

Designation

Address

Date

Directorate seal

Note: This letter of authority should be on the letterhead of the concerned manufacturer and should be signed by a person competent and having the power of attorney to bind the manufacturer.

2.2.5. Form T5 – OEM's support form

Date: dd/mm/yyyy

To,

<<>>

Reference: Supply of equipment/software for NWRS project

Sir,

We ______, (name and address of the manufacturer) who are established and reputed manufacturers of _______ having factories at ______ (addresses of manufacturing locations) do hereby assure that our equipment will be supported for the next 3 years by the platform M/s ______ (name and address of the bidder) has proposed to use for NWRS project.

Yours faithfully, for and on behalf of m/s _____

(Name of the manufacturer)

Signature

Name

Designation

Address

Date

Directorate seal

<u>Note: This letter of authority should be on the letterhead of the concerned manufacturer and should be signed by a person competent and having the power of attorney to bind the manufacturer.</u>

2.2.6. Form T6 – Statement of deviation from requirement specifications

Date: dd/mm/yyyy

Τo,

<<>>

Reference: RFP dated

Sir,

There are no technical deviations (null deviations) from the requirement specifications of tendered items and schedule of requirements. The entire work shall be performed as per your specifications and documents. OR (*Strike out whatever is not applicable*)

Following is the exhaustive list of technical deviations and variations from the requirement specifications of tendered items and schedule of requirements. Except for these deviations and variations, the entire work shall be performed as per your specifications and documents.

S. no.	Section no.	REQ no.	Page no.	Statement of deviations and variations
1.				
2.				

Authorized signatory

Name:

2.2.7. Form T7 – Statement of deviation from RFP terms and conditions

Date: dd/mm/yyyy

Τo,

<<>>

Reference: RFP dated

Sir,

There are no deviations (null deviations) from the terms and conditions of the tender. All the terms and conditions of the tender are acceptable to us.

OR (Strike out whatever is not applicable)

Following are the deviations from the terms and conditions of the tender. These deviations and variations are exhaustive. Except these deviations and variations, all other terms and conditions of the tender are acceptable to us.

S. no.	Section no.	Page no.	Para	Statement of deviations and variations
1.				
2.				

Authorized signatory

Name:

2.2.8. Form T8 – Warranty

(On the bidder's letterhead)

We warrant that the equipments supplied under the contract are newly manufactured, free from all encumbrances, defects and faults in material or workmanship or manufacture, shall be of the highest grade and quality, shall be consistent with the established and generally accepted standards for materials of the type ordered, shall be in full conformity with the specifications, drawings of samples, if any, and shall operate as designed. We shall be fully responsible for its efficient and effective operation. We also warrant that the services provided under the contract shall be as per the service level agreement (SLA) with WDRA. This warranty shall survive inspection of and payment for, and acceptance of the equipment and services, but shall expire 3 years after their successful installation and acceptance by WDRA i.e. (Go live)

We warrant that all services to be provided under the contract shall be as per our service level agreement (SLA) with WDRA. This warranty on services provided shall remain valid for the entire duration of the services contract from the date of acceptance by WDRA.

The obligations under the warranty expressed above shall include all costs relating to labor, spares, maintenance (preventive as well as unscheduled), and transport charges from site to manufacturer's works / service facilities and back for repair or modification or replacement at site of the equipment or any part of the equipment, which under normal care and proper use and maintenance proves defective in design, material or workmanship or fails to operate effectively and efficiently or conform to the specifications and for which notice is promptly given by WDRA to us (bidder).

We shall provide support for all the equipment and services supplied hereunder during the period of this warranty (3 years after acceptance for equipment and entire service period for services).

Authorized signatory

Name:

2.2.9. Form T9 – Performance bank guarantee

То

<<>>

Dear Sir,

PERFORMANCE BANK GUARANTEE – to implement, operate and maintain negotiable warehouse receipt system

WHEREAS

M/s. (name of bidder), a company registered under the companies' act, 1956, having its registered and corporate office at (address of the operator), (hereinafter referred to as "our constituent", which expression, unless excluded or repugnant to the context or meaning thereof, includes its successors and assigns), agreed to enter into a contract dated (Herein after, referred to as "Contract") with you (WDRA) for project implementation, operation and maintain WDRA's NWRS in the said contract.

We are aware of the fact that as per the terms of the contract, m/s. (name of bidder) is required to furnish an unconditional and irrevocable bank guarantee in your favor for an amount of......(10% of arithmetic sum of total cost as filled in form F2 final table), and guarantee the due performance by our constituent as per the contract and do hereby agree and undertake to pay any and all amount due and payable under this bank guarantee, as security against breach/ default of the said contract by our constituent.

In consideration of the fact that our constituent is our valued customer and the fact that he has entered into the said contract with you, we, (name and address of the bank), have agreed to issue this performance bank guarantee.

Therefore, we (name and address of the bank) hereby unconditionally and irrevocably guarantee you as under:

In the event of our constituent committing any breach/default of the said contract, and which has not been rectified by him, we hereby agree to pay you forthwith on demand such sum/s not exceeding the sum of INR 10 % of arithmetic sum of total cost as filled in form F2 final table) (in words and figures) without any demur.

THE CONDITIONS of this obligation are:

In consideration of the WDRA having agreed to award the Contract on the <name of the bidder>, we <name and address of the bank> do hereby guarantee, undertake, promise and agree to the WDRA, its successors and assignees that the <bidder>, their successors and assignees will faithfully perform and fulfill everything within the bidding document and the Contract order on their part to be performed or fulfilled, at the time (time being the essence of the Contract) and in the manner therein provided, do all obligations there under and we further undertake and guarantee to make payment to the WDRA a sum of(10 % of arithmetic sum of total cost as filled in form F2 final table), without any demur, in case the consultant, their successors and assignees do not faithfully perform and fulfill everything within the bidding document and the Contract on their part to be performed or fulfilled, at the time and in the manner therein provided and do not willfully and promptly do all obligations there under.

In case, the bidder fails to perform or fulfill the Contract as per the terms and conditions agreed upon, the WDRA is entitled to demand an amount equal to(10 % of arithmetic sum of total cost as filled in form F2 final table), from
bidder> and the demand made by the WDRA itself will be conclusive evidence and proof that the
bidder> has failed to perform or fulfill his obligations under the Contract and neither the consultant nor the Bank will be entitled to raise any dispute regarding the reasons for the failure of performance or fulfillment on any ground whatsoever.

We, <name and address of bank> further agree that the performance security herein contained shall remain in full force and effect for a period of <time duration calculated till 3 months after the go-live> from the date of the bank guarantee and till the WDRA certifies that the terms and conditions of the said Contract have been fully and properly carried out by the said <bidder> and accordingly discharge the guarantee, unless a demand or a claim under this guarantee is made on us in writing by the consultant on or before <time duration calculated till 3 months after the go-live> from the date of this bank guarantee we shall be discharged from all liabilities under this performance security thereafter or till 00/00/0000 whichever is earlier

Notwithstanding anything contained herein above:

- 1 Our liability under this Bank guarantee shall not exceed a sum of(10 % of arithmetic sum of total cost as filled in form F2 final table)
- 2 This Bank guarantee will be valid up to <time duration calculated till 3 months after the go-live>
- 3 We are liable to pay the guarantee amount or any part thereof under this bank guarantee only if you serve upon us a written claim or demand (and which should be received by us), on or before **(Inclusive of Claim Period)** at <name and address of the bank whereafter it ceases to be in effect in all respects whether or not the original bank guarantee is returned to us.

This guarantee shall be governed by and construed in accordance with the Indian laws and we hereby submit to the exclusive jurisdiction of courts of justice in India for the purpose of any suit or action or other proceedings arising out of this guarantee or the subject matter hereof brought by you may not be enforced in or by such count.

Datedof year

Yours faithfully,

For and on behalf of the bank,

(Signature)

Designation

(Address of the bank)

Note:

This guarantee will attract stamp duty as a security bond.

<u>A duly certified copy of the requisite authority conferred on the official/s to execute the guarantee</u> on behalf of the bank should be annexed to this guarantee for verification and retention thereof as documentary evidence in the matter.

2.2.10. Form T10 – Checklist for product documentation

- Bidders are required to provide printed technical documentation for the items listed in table below.
- Availability of adequate, correct and relevant technical documentation is essential for evaluation of offer.
- Bidders are requested to provide original copies of the documentation. In case the original copies are not available, bidders can provide clear readable photocopies.
- Bidder may add any other documentation, which will support their offer.
- Your offer is liable for outright rejection in case you do not submit the following manuals/information/literature along with the offer in a printed and readable form / on a CD. You may however add any additional documents in support of your offer.

Servers / computing infrastructure

S. no.	Item of requirement	Documentation submitted
1.	Application server	
2.	Database server	
3.	Web server	
4.	Server (others)	
5.	Other hardware	

Application software/Web application platform/Database platform

S. no.	Item of requirement	Documentation submitted
5.	RDBMS and development tools	
6.	Application software(s)/Web application platform	
7.	Any other item/equipment/software	

2.2.11. Form T11 – Supply and installation –Technical bill of material

- Bidders are required to provide the solution summary details in the following format
- Bidder has to provide details of the all hardware components and associated software (Provide the details wherever applicable) required for the successful hosting of the NWRS at the data centre.
- The quantity as mentioned in the table is the number identified by bidder to provide the best possible solution to WDRA

Servers / computing infrastructure

S no	Item of requirement	Make	Model/ version /Detailed specifications	Quantity	Warranty conditions
1.	Application server				
2.	Data base server				
3.	Web server				
4.	Server (Others)				
5.	Other Hardware				

Application software/Web application platform/Database platform

S no	Item of requirement	Version	Modules proposed	Number of licenses	License type (Server based/user based/SaaS/A ny other)
1.	RDBMS & development tools				
2.	Application software(s)/Web application platform				
3.	Any other item/equipment/software				

2.2.12. Form T12 – Previous deployment of proposed hardware/OS platform

<u>The form would need to be filled for each item of requirement mentioned in form – t16 in servers / computing infrastructure section.</u>

S no	Client details	Project details	Quantity	Operating system	Users supported	Go live since
1.						
2.						
3.						
4.						
5.						
6.						
7.						

2.2.13. Form T13 – Previous deployment of proposed application software platform

<u>The form would need to be filled for each item of requirement mentioned in form – t16 in application</u> <u>software/Web application platform/Database platform</u>

S no	Client details	Project details	Quantity	Software licenses	Licensing policy	Users supported	In operations since
1.							
2.							
3.							
4.							
5.							
6.							
7.							

3. Price schedule forms

3.1. Form F1 -Commercial bid form

Date: [Bidder insert: date of bid]

To:

WDRA,

Having examined the bidding documents, the receipt of which is hereby acknowledged, we, the undersigned, offer to

- 1. Supply the equipment and provide services as stipulated in the RFP
- 2. Undertake the project for a period of 3 years post Go live, we affirm that the prices quoted are inclusive of delivery, installation, and commissioning charges.
- 3. Provide other services mentioned in the RFP

For charges as mentioned in form F2 (Summary cost table)

We undertake, if our bid is accepted, to commence work on the negotiable warehouse receipt system (NWRS) and other scope of work to achieve installation and operational acceptance within the respective times.

We understand that we would need to procure the servers as required and given as part of the response. We understand that the specification provided is the minimum requirement and we shall procure better equipment if it is required to meet the service levels mentioned in the RFP. Also, it is our responsibility to successfully run the NWRS application on the servers procured by us as per the network architecture proposed by us.

If our bid is accepted, we undertake to provide a performance security in the form, in the amounts, and within the times specified in the bidding documents.

We hereby certify that the software offered in this bid and to be supplied under the contract:

- 1. Either is owned by us, or
- 2. If not owned by us, is covered by a valid license from the proprietor of the software.

We agree to abide by this bid, for a period of 180 days from the date fixed for submission of bids as stipulated in the bidding documents, and it shall remain binding upon us and may be accepted by you at any time before the expiration of that period.

Until the formal final contract is prepared and executed between us, this bid, together with your written acceptance of the bid and your notification of award, shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any bid you may receive.

Dated this [insert: ordinal] day of [insert: month], [insert: year].

Signed:

Date:

In the capacity of [insert: title or position]

Duly authorized to sign this bid for and on behalf of [insert: name of bidder]

ENCLOSURES:

- Price schedules
- Bid security
- Signature authorization
- It is assumed that bidders shall have read the technical requirements and other sections of these bidding documents, and the WDRA act and the applicable rules and regulations thereof, to ascertain the full scope of the requirements associated with each item prior to filling in the rates and prices. The quoted rates and prices shall be deemed to cover the full scope of these technical requirements, as well as overhead and profit.
- 2. If bidders are unclear or uncertain as to the scope of any item, they shall seek clarification in accordance with the instructions to bidders in the bidding documents prior to submitting their bid.
- 3. Prices shall be filled in indelible ink, and any alterations necessary due to errors, etc., shall be initialed by the bidder. As specified in the bid data sheet, prices shall be fixed and firm for the duration of the contract.
- 4. Bid prices shall be quoted in the manner indicated and in INR. Prices must correspond to items of the scope and quality defined in the technical requirements or elsewhere in these bidding documents.
- 5. The purchaser receives the right to ask the L1 bidder (defined as technically and commercially responsive bidder quoting the lowest in the Form F2 of the price schedule form) the mechanism or the breakup of the per unit transaction cost quoted.

3.2. Form F2 - Summary cost table

S. no.	Particulars	[insert:] price in figures	[insert:] price in words
1.	Supply and installation costs (from supply and installation cost summary table)- table 3.2.1		
2.	Recurrent costs- table 3.2.2		
3.	Value added taxes (Total)		
4.	Sales taxes(Total)		
5.	Service tax(Total)		
6.	Any other taxes		
	Grand total		

Note: The price quoted should be inclusive of all taxes

The bidder should quote service tax at the rates applicable at the time of bidding for the purpose of evaluation only. The payments to the vendor would be made in accordance with the applicable rate of service tax at the time of payment only.

Changes in applicable taxes for all other tax heads, except service tax, would be borne by the bidder.

Name of bidder:

3.2.1. Supply and installation cost summary table

S. no	Subsystem / item	Price (INR) in figures	Price (INR) in words
1)	Development, testing and implementation charges for custom software (NWRS)		
2)	Total cost of supplied software		
3)	Total cost of supplied hardware		
4)	Training costs		
5)	Total Value added taxes		
6)	Total Sales taxes		
7)	Total Service tax		
8)	Any other taxes		
	TOTAL		
	(To summary cost table)		

Note: The price quoted should be inclusive of all taxes.

The bidder should quote service tax at the rates applicable at the time of bidding for the purpose of evaluation. The payments to the vendor would be made in accordance with the applicable rate of service tax at the time of payment only.

Changes in applicable taxes for all other tax heads, except service tax, would be borne by the bidder.

Please provide taxes/rates applicable for every line item.

Description of item	Applicable taxes	Rate of tax applicable

Name of bidder:

3.2.2. Recurrent cost summary table

S. no.	Component	Y1	Y2	Y3	Sub-total for [INR]in figures & words
1)	Maintenance(Software AMC) of standard software including software licenses and updates				
2)	Maintenance and support of NWRS application				
4)	Annual maintenance charges of hardware provided				
5)	Value added taxes				
6)	Sales taxes				
7)	Service tax				
8)	Any other taxes				
				Total amo	ount

Note: the price quoted should be inclusive of all taxes.

The bidder should quote service tax at the rates applicable at the time of bidding for the purpose of evaluation. The payments to the vendor would be made in accordance with the applicable rate of service tax at the time of payment only.

Changes in applicable taxes for all other tax heads, except service tax, would be borne by the bidder.

Please provide taxes applicable for every line item.

Description of item	Applicable taxes	Rate of tax applicable

Name of bidder:

3.3. Unit charges for hardware infrastructure and software licenses

Servers / computing infrastructure

S no	Item of requirement	Hardware unit cost	Software licenses unit cost		Taxes
				Type of tax	Tax amount
1.	Application server				
2.	Data base server				
3.	Web server				
4.	Server (Others)				

Application software/Web application platform/Database platform

S no	Item of requirement	Software licenses unit cost		Taxes
			Type of tax	Tax amount
1.	RDBMS & development tools			
2.	Application software(s)/Web application platform			
3.	Any other item/equipment/software			

Name of bidder:

3.4. Charges for additional work/scope change

S. no.	Resource title	Total daily charge (INR)
1)		
2)		
3)		

Additional language development costs

ltem	Total cost (in figures)	Total cost in words
Rolling out the NWRS application to		
all 15 languages		
Service tax		
Any product costs		
Sales tax/VAT		
Total		

Recurrent cost summary table (Extension)

S. no.	Component	Y1	Y2	Y3	Sub-total for [INR]in figures & words
1)	Maintenance(Software AMC) of standard software including software licenses and updates				
2)	Maintenance and support of NWRS application				
3)	Annual maintenance charges of hardware provided				
				Total amo	punt

Note: the price quoted should be inclusive of all taxes.

Name of bidder:

3.5. Form F3 – Quotes for optional services

Hosting Service

Item	Total cost (in figures)	Total cost in words
Per month hosting cost for the		
NWRS application at data center,		
including DR hosting for FY 2013-14		
Per month hosting cost for the		
NWRS application at data center,		
including DR hosting for FY 2014-15		
Per month hosting cost for the		
NWRS application at data center,		
including DR hosting for FY 2015-16		
Per month hosting cost for the		
NWRS application at data center,		
including DR hosting for FY 2016-17		
Service tax		
Sales tax/VAT		
Total		

Name of bidder:

Section 5 - Specimen Contract

Contract for supply, design and development of negotiable warehouse receipt system at WDRA

THIS CONTRACT is made on the day of , 2013

BETWEEN

The Warehousing development and regulatory authority having its office at Warehousing Bhawan, Siri fort institutional area, Khel Gaon Marg, New Delhi represented by chairperson, WDRA (hereinafter referred to as the "[WDRA]" which term or expression, unless excluded by or repugnant to the subject or context, shall mean and include its successors-in office and assignees) of the FIRST PART

AND

XXXX, a company registered under the companies act, 1956 having its registered office at XXXXXXX (hereinafter referred to as the "System Integrator", (which term or expression, unless excluded by or repugnant to the subject or context, shall mean and include its successors in office and permitted assigns) of the SECOND PART represented by XXXXXXX

"System Integrator" and "WDRA" shall hereinafter jointly be referred to as "Parties" and individually as a "Party".

WHEREAS WDRA has engaged m/s XXXX as System Integrator for supply, design and development of Negotiable Warehouse Receipt System (NWRS) at WDRA

And WHEREAS "System Integrator" has agreed to provide services for supply, design and development of negotiable warehouse receipt system at WDRA as per the scope of work and terms and conditions given in the RFP issued by WDRA, for the period stipulated in this contract.

NOW, THEREFORE, IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES AS UNDER:

1. Contract and interpretation

1.1. Definitions

- "Bidding documents" means to the collection of documents that had been issued by the WDRA to instruct and inform potential System Integrators of the processes for bidding, selection of the winning bid, and contract formation, as well as the contractual conditions governing the relationship between the WDRA and the System Integrator, and the general and special conditions of contract and the technical requirements.
- 2. "Contract" means the agreement entered into between the WDRA and the System Integrator using the form of contract contained in the sample forms section of the bidding documents and any modifications to this form agreed to by the WDRA and the System Integrator. The date of the contract shall be recorded in the signed form.
- 3. "Contract price" means the price or prices defined in (Contract price and terms of payment) the contract.
- 4. "Custom materials" means materials developed by the System Integrator at the WDRA's expense under the contract and identified as such in the contract and such other materials as the parties may agree in writing to be custom materials.
- 5. "Custom software" means software developed specifically to meet the requirements of WDRA as defined in the bidding document.
- 6. "GCC" means the general conditions of contract.
- 7. "Goods" means all equipment, machinery, furnishings, materials, and other tangible items that the System Integrator is required to supply or supply and install under the contract, including, without limitation, the information technologies and materials, but excluding the System Integrator's equipment.
- 8. "Information technologies" means all information processing and communications-related hardware, software, supplies, and consumable items that the System Integrator is required to supply and install under the contract.
- 9. "Materials" means all documentation in printed or printable form and all instructional and informational aides in any form (including audio, video, and text) and on any medium, provided to the WDRA under the contract.
- 10. "Negotiable warehouse receipt system (NWRS)," also called "the system," means all the information technologies, materials, and other goods to be developed, supplied, installed, integrated, and made operational (exclusive of the System Integrator's equipment), together with the operation, maintenance and services to be carried out by the System Integrator under the contract.
- 11. "Project site(s)" means the place(s) specified for the supply and installation of the system. for the hardware and associated standard & customized software is third party data centre site, decided by WDRA
- 12. "Services" means all technical, logistical, management, and any other services to be provided by the System Integrator under the contract to supply, install, customize, integrate, and make operational the system. Such services may include, but are not restricted to, activity management and quality assurance, design, development, customization, documentation, transportation, insurance, inspection, expediting, site preparation, installation, integration, training, data migration, pre-commissioning, commissioning, maintenance, and technical support.
- 13. "SLA" means the service level agreement as defined in the bidding documents

- 14. "Software" means that part of the system which are instructions that cause information processing subsystems to perform in a specific manner or execute specific operations.
- 15. "Source code" means the database structures, dictionaries, definitions, program source files, and any other symbolic representations necessary for the compilation, execution, and subsequent maintenance of the software (typically, but not exclusively, required for custom software).
- 16. "Standard software" means software identified in the contract and such other software as the parties may agree in writing to be standard software.
- 17. "System Integrator" means the person(s) whose bid to perform the contract has been accepted by the WDRA and is named as such in the contract. System Integrator, successful System Integrator and selected total solution provider (TSP) has been used interchangeably.
- 18. "System Integrator's representative" means any person nominated by the System Integrator and named as such in the contract and approved by the WDRA to perform the duties delegated by the System Integrator.
- 19. "System software" means software that provides the operating and management instructions for the underlying hardware and other components, and is identified in the contract and such other software as the parties may agree in writing to be systems software. Such system software includes, but is not restricted to, micro-code embedded in hardware (i.e., "firmware"), operating systems, communications, system and network management, and utility software.
- 20. "Technical requirements" means the technical requirements section of the bidding documents.
- 21. "Warranty period" means the period of validity of the warranties given by the System Integrator commencing at date of the go-live certificate of the system, during which the System Integrator is responsible for defects with respect to the system. The warranty period is for 3 years post go-live.

1.2. Contract documents

All documents forming part of the contract (and all parts of these documents) are intended to be correlative, complementary, and mutually explanatory. The **contract shall be read as a whole**.

This contract, including its schedules annexure, forms, represents the entire contract between the parties as noted in this clause.

1.3. Interpretation

1. <u>Language</u>

All contract documents, all correspondence, and communications to be given shall be written in the English language, and the contract shall be construed and interpreted in accordance with that language.

2. <u>Entire contract</u>

The contract constitutes the entire agreement between the WDRA and System Integrator with respect to the subject matter of contract and supersedes all communications, negotiations, and agreements (whether written or oral) of parties with respect to the subject matter of the contract made prior to the date of contract.

3. <u>Amendment</u>

No amendment or other variation of the contract shall be effective unless it is in writing, is dated, expressly refers to the contract, and is signed by a duly authorized representative of each party to the contract.

4. Independent System Integrator

The System Integrator shall be an independent contractor performing the contract. The contract does not create any agency, partnership, joint venture, or other joint relationship between the parties to the contract.

Subject to the provisions of the contract, the System Integrator shall be solely responsible for the manner in which the contract is performed. All employees, representatives, engaged by the System Integrator in connection with the performance of the contract shall be under the complete control of the System Integrator and shall not be deemed to be employees of the WDRA, and nothing contained in the contract shall be construed to create any contractual relationship between any such employees, representatives, and the WDRA.

5. <u>No waiver</u>

No relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the contract, nor shall any waiver by either party of any breach of contract operate as waiver of any subsequent or continuing breach of contract.

Any waiver of a party's rights, powers, or remedies under the contract must be in writing, must be dated and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.

6. <u>Severability</u>

If any provision or condition of the contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity, or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the contract.

1.4. Notices

- 1. Unless otherwise stated in the contract, all notices to be given under the contract shall be in writing and shall be sent by personal delivery, facsimile, electronic mail, or electronic data interchange (EDI) to the address of the relevant party.
 - a. Any notice delivered personally or sent by cable, telegraph, telex, facsimile, electronic mail, or EDI shall be deemed to have been delivered on the date of its dispatch.
 - b. Any notice sent by airmail post or special courier shall be deemed (in the absence of evidence of earlier receipt) to have been delivered ten (10) days after dispatch. In proving the fact of dispatch, it shall be sufficient to show that the envelope containing such notice was properly addressed, stamped, and conveyed to the postal authorities or courier service for transmission by airmail or special courier.
 - c. Either party may change its postal, cable, telex, facsimile, electronic mail, or EDI address or addressee for receipt of such notices by ten (10) days' notice to the other party in writing.
- 2. Notices shall be deemed to include any approvals, consents, instructions, orders, and certificates to be given under the contract.

1.5. Governing law

The contract shall be governed by and interpreted in accordance with the laws of India.

1.6. Settlement of disputes

1. If any dispute of any kind whatsoever shall arise between the WDRA and the System Integrator in connection with or arising out of the contract, the parties shall seek to resolve any such

dispute or difference by mutual consultation. However, if the parties fail to resolve such a dispute or difference by mutual consultation, within fourteen (14) days after one party has notified the other in writing of the dispute or difference, then the matter will be referred in writing for arbitration to a sole arbitrator nominated and appointed by the chairman, WDRA.

- 2. Arbitration proceedings will be held in Delhi only.
- 3. The award of the sole arbitrator shall be final and binding on all the parties. The arbitrations proceedings shall be governed by Indian arbitration and conciliation act, 1996, as amended from time to time.
- 4. Notwithstanding any reference to the arbitration in this clause,
 - a. The parties shall continue to perform their respective obligations under the contract unless they otherwise agree.
 - b. The WDRA shall pay the System Integrator any monies due the System Integrator.

1.7. Legal Judistriction

All legal disputes between the parties shall be subject to the judistriction of the courts situated in Delhi only

2. Subject matter of contract

2.1. Scope of system

- 1. The scope of system is as defined in the bidding documents.
- 2. The System Integrator shall, unless specifically excluded in the contract, perform all such work and / or supply all such items and materials not specifically mentioned in the bidding documents but that can be reasonably inferred from the scope as being required for attaining go-live of the system.

2.2. Time for commencement and go-live

- 1. The System Integrator shall commence work on the system within ten days from the effective date of issuance of letter of intent, and the System Integrator shall thereafter proceed with the system in accordance with the time schedule specified in the implementation schedule in the technical requirements section and any refinements made in the agreed and finalized project plan.
- 2. The System Integrator shall achieve of the user acceptance and thereafter go-live of the system in accordance with the time schedule specified in the implementation schedule in the technical requirements section and any refinements made in the agreed and finalized project plan.

2.3. System Integrator's responsibility

- 1. The System Integrator shall conduct all activities with due care and diligence, in accordance with the contract and with the skill and care expected of a competent provider of information technologies, negotiable warehouse receipt system (NWRS), support, maintenance, training, and other related services, or in accordance with leading industry practices. In particular, the System Integrator shall provide and employ only technical personnel who are skilled and experienced in their respective callings and supervisory staff who are competent to adequately supervise the work at hand. In case of request from WDRA System Integrator shall promptly replace the identified resource.
- 2. The System Integrator confirms that it has entered into this contract on the basis of a proper examination of the data relating to the system provided by the WDRA and on the basis of

information that the System Integrator could have obtained from a visual inspection of the site and of other data readily available to the System Integrator relating to the system prior to bid submission. The System Integrator acknowledges that any failure to acquaint itself with all such data and information shall not relieve its responsibility for properly estimating the difficulty or cost of successfully performing the contract.

- 3. The System Integrator shall be responsible for timely provision of all resources, information, and decision making under its control that are necessary to reach a mutually agreed and finalized project plan within the time schedule specified in the implementation schedule in the technical requirements section. Failure to provide such resources, information, and decision making may constitute grounds for termination pursuant to clause 8.2 <u>Termination of contract</u>.
- 4. The System Integrator shall acquire in its name all permits, approvals, and/or licenses from all local, state, or national government authorities or public service undertakings that are necessary for the performance of the contract.
- 5. The System Integrator shall comply with all laws in force in India. The laws will include all national, provincial, municipal, or other laws that affect the performance of the contract and are binding upon the System Integrator. the System Integrator shall indemnify and hold harmless the WDRA from and against any and all liabilities, damages, claims, fines, penalties, and expenses of whatever nature arising or resulting from the violation of such laws by the System Integrator or its personnel, but without prejudice to clause 2.4 WDRA's responsibilities. The System Integrator shall not indemnify the WDRA to the extent that such liability, damage, claim, fines, penalties, and expenses were caused or contributed to by a fault of the WDRA.
- 6. The System Integrator shall, in all dealings with its WDRA officials, pay due regard to all recognized festivals, official holidays, religious or other customs, and all local laws and regulations pertaining to the employment of WDRA officials.
- 7. The System Integrator must provide and deploy teams for functional area (For example: design team, development team, testing team etc.) and a team which will work on common / integration aspects.
- 8. The System Integrator is responsible for performing and safely storing timely and regular backups of its data and software in accordance with accepted data management principles.

2.4. WDRA's responsibilities

- 1. The WDRA shall ensure the accuracy of all information and/or data to be supplied by the WDRA to the System Integrator, except when otherwise expressly stated in the contract.
- 2. The WDRA shall be responsible for timely provision of all resources, information, and decision making under its control that are necessary to reach an agreed and finalized project plan.
- 3. If requested by the System Integrator, the WDRA shall use its best endeavors to assist the System Integrator in obtaining in a timely and expeditious manner all permits, approvals, and/or licenses necessary for the execution of the contract from all local, state, or national government authorities or public service undertakings that such authorities or undertakings require the System Integrator or the personnel of the System Integrator, as the case may be, to obtain.
- 4. Unless otherwise specified in the contract or agreed upon by the WDRA and the System Integrator, the WDRA shall provide sufficient, properly qualified operating and technical personnel, as required by the System Integrator to properly carry out delivery, precommissioning, installation, commissioning, and operational acceptance, at or before the time specified in the technical requirements section's implementation schedule and the agreed and finalized project plan.

- 5. The WDRA will designate appropriate staff for the training to be provided by the System Integrator and shall make all appropriate logistical arrangements for such training as specified in the technical requirements, the agreed and finalized project plan, or other parts of the contract.
- 6. The WDRA assumes primary responsibility for the user acceptance test(s) for the system, and shall be responsible for the continued operation of the system after go-live. However, this shall not limit in any way the System Integrator's responsibilities after the date of go-live otherwise specified in the contract.

3. Payment

3.1. Contract price

1. The contract price is <Final value agreed upon>.

2. The System Integrator shall be deemed to have satisfied itself as to the correctness and sufficiency of the contract price, which shall, except as otherwise provided for in the contract, cover all its obligations under the contract

3.2. Terms of payment

- 1. The System Integrator's request for payment shall be made to the WDRA in writing, accompanied by an invoice describing, as appropriate, the payment milestone.
- 2. The contract price shall be paid as specified during the signing of the contract. No payment made by the WDRA herein shall be deemed to constitute acceptance by the WDRA of the system or any subsystem(s).
- 3. The currency for payment would be Indian rupee (INR).
- 4. Payments shall be made promptly by the WDRA, but in no case later than twenty one (21) days after submission of a valid invoice by the System Integrator subject to compliance of financial milestone.
- 5. All payments are subject to the application of liquidated damages / penalties defined and provided for in this RFP. It is clarified here that the WDRA shall pay for the services as stated in accordance with the payment schedule specified below and the WDRA can also calculate a financial sum and debit the same against the terms of payment as a result of the failure of the System Integrator to meet the service level under the defined SLA or to meet implementation timelines as set out in technical requirements.
- 6. The payments to the vendor would be made in accordance with the applicable rate of service tax at the time of payment.
- 7. Changes in applicable taxes for all other tax heads, except service tax, would be borne by the bidder.

Payment for supply and installation cost:

WDRA will be making payments to the selected System Integrator based on the milestone achieved by the System Integrator as given below in the table:

Milestone	% of total supply and installation cost
Advance (On bank guarantee of equal amount)	10%
Approval of system design by WDRA	20%
Installation of hardware and application at data center	20%
Completion of user acceptance testing	20%

Completion of go-Live phase	10%	
Completion of handholding phase	20%	

Payment for support cost:

- 1. Payment towards L3 support cost will be paid quarterly starting from the end of 3 months post go-live.
- 2. Payments for annual maintenance charges for hardware and software and applications will be paid in advance annually in the same month post completion of go-Live phase

3.3. Performance bank guarantee

- 1. The System Integrator shall, at the time of signing the contract, provide a security for the due performance of the contract in Indian rupees (INR), for an amount equal to 10 percentage of the total price quoted by the System Integrator supply and installation of NWRS in form F2.
- 2. The security shall be in the form of a bank guarantee, in the form provided in the bidding forms section of the bidding documents. (Form T9). The guarantee shall be valid till the end of three months after the go-live of NWRS.
- 3. The security shall be returned to the System Integrator no later than thirty (30) days after the System Integrator submit the bank guarantee for the support period.
- 4. Post go-live, the System Integrator shall, within ten (10) days of the issuance of go-live certificate, provide a security for the due performance of the contract in Indian rupees (INR), for an amount equal to 10 percentage of the and total of 3 years of annual recurrent cost in table 4.2.2. The bank guarantee should be valid for at least 36 months from the date of issue.

3.4. Taxes and duties

- 1. The price quoted shall be inclusive of all the taxes and duties levied from the goods supplied. The System Integrator needs to mention other tax breakups which they foresee, in their proposal. All taxes will be paid on actual.
- 2. The WDRA shall be entitled to deduct taxes from the amounts due and payable to the System Integrator wherever applicable as per the applicable laws. the System Integrator shall pay for all other taxes in connection with the contract, and SLA including, but not limited to, property, sales, use, excise duty, value-added, goods and services, consumption and other similar taxes or duties.
- 3. The WDRA shall provide System Integrator with the original tax receipt of any withholding taxes paid for NWRS project on payments under the contract. The System Integrator agrees to reimburse and hold the WDRA harmless from any deficiency (including penalties and interest) relating to taxes that are its responsibility under this paragraph.
- 4. In the event of any increase or decrease of the rate of taxes due to any statutory notification/s during the term the consequential effect shall be to the account of the System Integrator.

4. Intellectual property

4.1. Copyright

1. The intellectual property rights in all standard software shall remain vested in the owner of such rights.

- 2. WDRA's contractual rights to use the standard software or elements of the standard software may not be assigned, licensed, or otherwise transferred voluntarily except in accordance with the relevant license agreement.
- 3. The intellectual property rights in all custom software (including the source code) and custom materials made during the course of the project shall, at the date of this contract or on creation of the rights (if later than the date of this contract), vest in the WDRA. The System Integrator shall do and execute or arrange for the doing and executing of each necessary act, document, and thing that the WDRA may consider necessary or desirable to perfect the right, title, and interest of the WDRA in and to those rights. In respect of such custom software and custom materials, the System Integrator shall ensure that the holder of a moral right in such an item does not assert it, and the System Integrator shall, if requested to do so by WDRA and where permitted by applicable law, ensure that the holder of such a moral right waives it.
- 4. Any IPR created on the deliverable of the project will vest with WDRA along with the source code.
- 5. WDRA will be the owner of all the data captured during the course of the project.
- 6. The System Integrator does not have the right to prepare derivative works based on the custom software or other such custom developed material, and to market, sub license and distribute copies of such derivative works, without the written permission of WDRA

4.2. Software license agreements

- 1. Except to the extent that the intellectual property rights in the software vest in the WDRA, the System Integrator hereby grants to the WDRA perpetual license to access and use the software, including all inventions, designs, and marks embodied in the software.
 - a. Such license to access and use the software shall be:
 - i. Non-exclusive
 - ii. Fully paid up and irrevocable (except that it shall terminate if the contract terminates under clause 8.2 <u>Termination of contract</u>)
 - b. Such license to access and use the software shall permit the software to be:
 - i. Used or copied for use on or with the computer(s) for which it was acquired (if specified in the technical requirements and/or the System Integrator's bid), plus a backup computer(s) of the same or similar capacity, if the primary is(are) inoperative, and during a reasonable transitional period when use is being transferred between primary and backup
 - ii. Used or copied for use on or transferred to a replacement computer(s), (and use on the original and replacement computer(s) may be simultaneous during a reasonable transitional period) provided that, if the technical requirements and/or the System Integrator's bid specifies a class of computer to which the license is restricted and unless the System Integrator agrees otherwise in writing, the replacement computer(s) is (are) within that class.
 - iii. If the nature of the system is such as to permit such access, accessed from other computers connected to the primary and/or backup computer(s) by means of a local or wide-area network or similar arrangement, and used on or copied for use on those other computers to the extent necessary to that access.
 - iv. Reproduced for safekeeping or backup purposes.
 - v. Customized, adapted, or combined with other computer software for use by the WDRA, provided that derivative software incorporating any substantial part of

the delivered, restricted software shall be subject to same restrictions as are set forth in this contract.

vi. Disclosed to, and reproduced for use by, support service System Integrators, (and the WDRA may sublicense such persons to use and copy for use the software) to the extent reasonably necessary to the performance of their support service contracts, subject to the same restrictions as are set forth in this contract

4.3. Confidential information

- 1. The WDRA and the System Integrator ("the receiving party") shall each keep confidential and shall not, without the written consent of the other party to this contract ("the disclosing party"), divulge to any third party any documents, data, or other information of a confidential nature ("Confidential information"):
 - a. Furnished directly or indirectly by the disclosing party in connection with this contract
 - b. Here the System Integrator is the receiving party, generated by the System Integrator in the course of the performance of its obligations under the contract and relating to the businesses, finances, System Integrators, employees, or other contacts of the WDRA or the WDRA's use of the system,

Whether such information has been furnished or generated prior to, during, or following termination of the contract ("Confidential information").

- 2. The WDRA shall not, without the System Integrator's prior written consent, use any confidential information received from the System Integrator for any purpose other than the operation, maintenance and further development of the system. Similarly, the System Integrator shall not, without the WDRA's prior written consent, use any confidential information received from the WDRA for any purpose other than those that are required for the performance of the contract.
- 3. The obligation of a party under this clause, however, shall not apply to that information which:
 - a. Now or hereafter enters the public domain through no fault of the receiving party
 - b. Can be proven to have been possessed by the receiving party at the time of disclosure and that was not previously obtained, directly or indirectly, from the disclosing party
 - c. Otherwise lawfully becomes available to the receiving party from a third party that has no obligation of confidentiality.
- 4. The above provisions of this clause shall not in any way modify any undertaking of confidentiality given by either of the parties to this contract prior to the date of the contract in respect of the system or any part thereof.
- 5. The provisions of this clause shall survive the termination, for whatever reason, of the contract for three (3) years.
- System Integrator undertakes to meet the security requirements/stipulations lay down by WDRA. All the matters related to the contract will be treated as classified and highly confidential and shall not be communicated to anybody or published/advertised without the written consent of the WDRA.

4.4. Rights of WDRA and System Integrator

 Except to the extent otherwise expressly provided in this contract, the WDRA shall retain exclusive intellectual property rights to the NWRS to which the WDRA has exclusive rights and nothing herein shall or will be construed or deemed to grant to the System Integrator any right, title, license, sub-license, proprietary right or other claim against or interest in, to or under (whether by estoppels, by implication or otherwise) to the aforesaid rights.

- a. The intellectual property rights on the NWRS shall vest with the WDRA pursuant to clause 7.1 <u>Transfer of ownership</u>
- 2. Without limiting the generality of this clause and except to the extent otherwise expressly agreed by the parties to this contract in writing, nothing contained in this contract shall or will be construed or deemed to grant to the System Integrator or its respective affiliates/nominees any right, title, license or other interest in, to or under (whether by estoppels, by implication or otherwise) any logo, trademark, trade name, service mark or similar designations of the project or any confusingly similar designations of the project.
- 3. Subject to any sole or exclusive rights granted by the WDRA to a third party prior to the effective date, WDRA grants to the System Integrator or its nominated agencies, solely in their performance of services for project non-exclusive, paid-up, royalty-free right and license during the term of contract (but not the right to sub-license) to use the project data including the right to copy, perform, display, execute, reproduce, modify, enhance and improve the project data to the extent reasonably necessary or useful for the provision of services hereunder.
- 4. The System Integrator shall not use the project data for any other purpose other than for the purpose of providing the services.
- 5. All rights, title and interest in and to, and ownership in, project proprietary information shall remain solely with the WDRA. System Integrator shall be entitled to use such project proprietary information only during the term and only for the purposes of providing the services or to the extent necessary for System Integrator's normal operational, repair and maintenance purposes related to the services. The WDRA shall retain ownership of all intellectual property rights related to project proprietary information.
- 6. All rights, title and interest in System Integrator proprietary information, shall remain solely with System Integrator. The System Integrator will upon the award of the NWRS in its favor, declare the status of all the System Integrator proprietary information along with documentary support sufficient to establish its sole legal rights in the aforesaid proprietary information to the WDRA. This proprietary information shall refer to that which has been owned by the System Integrator prior to commencement of the contract.

5. Supply, installation, testing, commissioning and acceptance of system

5.1. Representatives

- System Integrator's representative the System Integrator would appoint the project manager, as proposed in the bid, as the System Integrator's representative for the project, subject to WDRA approval. This representative shall be deployed full time for the project.
 - The System Integrator's representative shall have the authority to represent the System Integrator on all day-to-day matters relating to the system or arising from the contract. The System Integrator's representative shall give to WDRA all the System Integrator's notices, instructions, information, and all other communications under the contract.
 - b. All notices, instructions, information, and all other communications given by the WDRA or WDRA to the System Integrator under the contract shall be given to the System Integrator's representative or, in its absence, its deputy, except as otherwise provided for in this contract.
 - c. The System Integrator shall not revoke the appointment of the System Integrator's representative without the WDRA's prior written consent, which shall not be

unreasonably withheld. If the WDRA consents to such an action, the System Integrator shall appoint another person of equal or superior qualifications as the System Integrator's representative, pursuant to the procedure set out in clause 5.1.

d. If any representative or person employed by the System Integrator is removed, the System Integrator shall, where required, promptly appoint a replacement.

5.2. Project deliverables

- 3. The System Integrator shall during the course of the project, develop and submit the various deliverables as provided in the bidding documents, in line with the approved project plan.
- 4. Any part of the system covered by or related to the technical documents to be approved by the WDRA shall be executed only after the WDRA's approval of these documents.
- 5. The System Integrator shall not depart from any approved document unless the System Integrator has first submitted to WDRA, an amended document and obtained WDRA's approval of the document.

5.3. Scope of services

- 1. The System Integrator shall undertake the entire supply, installation, testing, commissioning and rollout of the NWRS system, as per the technical requirements listed out in the bidding documents.
- 2. The System Integrator shall provide all services specified in the contract and agreed and finalized project plan in accordance with the highest standards of professional competence and integrity.
- 3. The WDRA or its representative shall have the right to inspect and/or test any components of the system, as specified in the technical requirements, to confirm their good working order and/or conformity to the contract at the point of delivery and/or at the project site.

5.4. Product upgrades

- Codes and standards wherever references are made in the contract to codes and standards in accordance with which the contract shall be executed, the edition or the revised version of such codes and standards current at the date twenty-eight (28) days prior to date of bid submission shall apply. During contract execution, any changes in such codes and standards shall be applied after approval by the WDRA and shall be treated in accordance with clause 8.1 point 3.
- 2. At any point during performance of the contract, should technological advances be introduced by the System Integrator for information technologies originally offered by the System Integrator in its bid and still to be delivered, the System Integrator shall be obligated to offer to the WDRA the latest versions of the available information technologies having equal or better performance or functionality at the same or lesser unit prices, pursuant to clause 8.1 (Changes to the system).
- 3. At any point during performance of the contract, for information technologies still to be delivered, the System Integrator will also pass on to the WDRA any cost reductions and additional and/or improved support and facilities that it offers to other clients of the System Integrator in the WDRA's country, pursuant to clause 8.1 (Changes to the system).
- 4. During the performance of the contract and the warranty period, the System Integrator will provide at no additional cost to the WDRA all new versions, releases, and updates for all standard software that are used in the system, within thirty (30) days of their availability from the System Integrator to other clients of the System Integrator in the India, and no later than twelve (12) months after they are released in the country of origin of the software.

5.5. Go-live

- The system would be considered go-live when all conditions as provided in section 5.12 in the technical requirements sections of the bidding document are met. As soon as the system has, in the opinion of the System Integrator, been delivered, pre-commissioned, and made ready for commissioning and acceptance testing and go-live in accordance with the technical requirements and agreed and finalized project plan, the System Integrator shall so notify the WDRA in writing.
- 2. At any time after go-live has occurred, the System Integrator may give a notice to WDRA requesting the issue of a go-live certificate.
- 3. Within fourteen (14) days after receipt of the System Integrator's notice, WDRA shall:
 - a. Issue an go-live certificate, or
 - b. Notify the System Integrator in writing of any defect or deficiencies including, but not limited to, defects or deficiencies in the interoperability or integration of the various components making up the system or any other reason for the failure of the go-live
- 4. The System Integrator shall use all reasonable endeavors to promptly remedy any defect and/or deficiencies that the WDRA has notified the System Integrator of. The System Integrator shall then promptly carry out retesting of the system and, when in the System Integrator's opinion the system is ready for operational acceptance testing, notify the WDRA in writing again.

6. Guarantees and liabilities

6.1. Go-live time guarantees

- 1. The System Integrator guarantees that it shall complete the supply, installation, commissioning, and achieve go-live of the system within the time periods specified in the implementation schedule in the technical requirements section and/or the agreed and finalized project plan
- 2. If the System Integrator fails to supply, install, commission, and achieve go-live of the system within the time for achieving go-live specified in the implementation schedule in the technical requirement or the agreed and finalized project plan, the System Integrator shall pay to the WDRA liquidated damages at the rate mentioned in SLA section of technical requirements. The aggregate amount of such liquidated damages shall in no event exceed 10% of the total price of the contract. Once the maximum is reached, the WDRA may consider termination of the contract.
- 3. Liquidated damages payable shall apply only to the failure to achieve operational acceptance of the system. This shall not limit, however, any other rights or remedies the WDRA may have under the contract for other delays.
- 4. If liquidated damages are claimed by WDRA, the System Integrator shall have no further liability in respect to the Go Live time guarantee for the system. However, the payment of liquidated damages shall not in any way relieve the System Integrator from any of its obligations to complete the system or from any other of its obligations and liabilities under the contract.

6.2. Defect liability

1. The System Integrator warrants that the system, including all information technologies, materials, and other goods supplied and services provided, shall be free from defects in the design, engineering, materials, and workmanship that prevent the system and/or any of its components from fulfilling the technical requirements or that limit in a material fashion the performance, reliability, or extensibility of the system and/or subsystems. There are no exceptions and/or limitations to this warranty with respect to software (or categories of

software). Commercial warranty provisions of products supplied under the contract shall apply to the extent that they do not conflict with the provisions of this contract.

- 2. The System Integrator also warrants that the information technologies, materials, and other goods supplied under the contract are new, unused, and incorporate all recent improvements in design that materially affect the system's ability to fulfill the technical requirements.
- 3. In addition, the System Integrator warrants that all goods components to be incorporated into the system form part of the System Integrator's current product lines, and they have been previously released to the market. All standard software must have been commercially available in the market for at least three months.
- 4. The warranty period shall commence from the date of go-live of the system and shall extend for 3 years.
- 5. If during the warranty period any defect should be found in the design, engineering, materials, and workmanship of the information technologies and other goods supplied or of the services provided by the System Integrator, the System Integrator shall promptly, in consultation and agreement with the WDRA regarding appropriate remedying of the defects, and at its sole cost, repair, replace, or otherwise make good (as the System Integrator shall, at its discretion, determine) such defect as well as any damage to the system caused by such defect. Any defective information technologies or other goods that have been replaced by the System Integrator shall remain the property of the System Integrator.
- 6. The System Integrator's obligations under this clause shall not apply to:
 - a. Any materials that are normally consumed in operation or have a normal life shorter than the warranty period
 - b. Any designs, specifications, or other data designed, supplied, or specified by or on behalf of the WDRA or any matters for which the System Integrator has disclaimed responsibility.
- 7. The WDRA shall give the System Integrator a notice promptly following the discovery of such defect, stating the nature of any such defect together with all available evidence.
- 8. If the System Integrator fails to commence the work necessary to remedy such defect or any damage to the system caused by such defect within 12 hours of notification, the WDRA may, following notice to the System Integrator, proceed to do such work or contract a third party (or parties) to do such work, at the risk and cost of the System Integrator.
- 9. At the request of the WDRA and without prejudice to any other rights and remedies that the WDRA may have against the System Integrator under the contract, the System Integrator will offer all possible assistance to the WDRA to seek warranty services or remedial action from any subcontracted third-party producers or licensor of goods included in the system, including without limitation assignment or transfer in favor of the WDRA of the benefit of any warranties given by such producers or licensors to the System Integrator.

6.3. Functional guarantees

- 1. The System Integrator guarantees that, once the go-live certificate(s) has been issued, the system represents a complete, integrated solution to the WDRA's requirements set forth in the technical requirements and it conforms to all other aspects of the contract.
- 2. If, for reasons attributable to the System Integrator, the system does not conform to the technical requirements or does not conform to all other aspects of the contract, the System Integrator shall at its cost and expense make such changes, modifications, and/or additions to

the system as may be necessary to conform to the technical requirements and meet all functional and performance standards.

6.4. Intellectual property rights warranty

- 1. The System Integrator hereby represents and warrants that the system as supplied, installed, tested, and accepted, the use of the system in accordance with the contract and copying of the software and materials provided to the WDRA in accordance with the contract do not and will not infringe any intellectual property rights held by any third party and that it has all necessary rights or at its sole expense shall have secured in writing all transfers of rights and other consents necessary to make the assignments, licenses, and other transfers of intellectual property rights and the warranties set forth in the contract, and for the WDRA to own or exercise all intellectual property rights as provided in the contract.
- 2. Without limitation, the System Integrator shall secure all necessary written agreements, consents, and transfers of rights from its employees and other persons or entities whose services are used for development of the system.

6.5. Intellectual property rights indemnity

1. No services covered under the contract shall be sold or disposed by the System Integrator in violation of any right whatsoever of third party, and in particular, but without prejudice to the generality of the forgoing, any patent right, trademark or similar right, or any charge mortgage or lien. the System Integrator shall indemnify the WDRA from all actions, costs, claims, demands, expenses and liabilities, whatsoever, resulting from any actual or alleged infringement as aforesaid, and at the expenses of the System Integrator, the WDRA shall be defended in any of the proceedings which may be brought in that connection. All the deliverables, hardware and custom software submitted by the System Integrator under the contract will be the sole property of WDRA.

6.6. Limitation of liability

The aggregate liability of the System Integrator to the WDRA, whether under the contract, in tort
or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply
to any obligation of the System Integrator to indemnify the WDRA with respect to intellectual
property rights infringement.

6.7. Representation and warranties of the System Integrator

The System Integrator warrants and represents to the WDRA that:

- 1. It is duly organized and validly existing under the laws of India, and has full power and authority to execute and perform its obligations under this contract and to carry out the transactions contemplated hereby.
- 2. It is a competent provider of a variety of information technology and business process management services
- 3. It has taken all necessary corporate and other actions under applicable laws to authorize the execution and delivery of this contract and to validly exercise its rights and perform its obligations under this contract
- 4. From the effective date, it will have the financial standing and capacity to undertake the project in accordance with the terms of this contract

- 5. In providing the services, it shall use reasonable endeavors not to cause any unnecessary disruption to WDRA's normal business operations
- 6. This contract has been duly executed by it and constitutes a legal, valid and binding obligation, enforceable against it in accordance with the terms hereof, and its obligations under this contract shall be legally valid, binding and enforceable against it in accordance with the terms hereof
- 7. The information furnished in the tender documents and as updated on or before the date of this contract is to the best of its knowledge and belief true and accurate in all material respects as at the date of this contract
- 8. The execution, delivery and performance of this contract shall not conflict with, result in the breach of, constitute a default by any of the terms of its memorandum and articles of association or any applicable laws or any covenant, contract, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected.
- 9. There are no actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi-judicial or other authority, the outcome of which may result in the breach of this contract or which individually or in the aggregate may result in any material impairment of its ability to perform any of its material obligations under this contract.
- 10. It has no knowledge of any violation or default with respect to any order, writ, injunction or decree of any court or any legally binding order of any government instrumentality which may result in any adverse effect on its ability to perform its obligations under this contract and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this contract.
- 11. It has complied with applicable laws in all material respects and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have an adverse effect on its ability to perform its obligations under this contract.
- 12. No representation or warranty by it contained herein or in any other document furnished by it to WDRA in relation to the required consents contains or shall contain any untrue or misleading statement of material fact or omits or shall omit to state a material fact necessary to make such representation or warranty not misleading
- 13. No sums, in cash or kind, have been paid or shall be paid, by it or on its behalf, to any person by way of fees, commission or otherwise for entering into this contract or for influencing or attempting to influence any officer or employee of WDRA in connection therewith.

6.8. Representation and warranties of the WDRA

WDRA represents and warrant to the System Integrator that:

- It has full power and authority to execute, deliver and perform its obligations under this contract and to carry out the transactions contemplated herein and that it has taken all actions necessary to execute this contract, exercise its rights and perform its obligations, under this contract and carry out the transactions contemplated hereby.
- It has taken all necessary actions under applicable laws to authorize the execution, delivery and performance of this contract and to validly exercise its rights and perform its obligations under this contract
- 3. It has the financial standing and capacity to perform its obligations under the contract

- 4. It is subject to the laws of India, and hereby expressly and irrevocably waives any immunity in any jurisdiction in respect of this contract or matters arising there under including any obligation, liability or responsibility hereunder
- 5. This contract has been duly executed by it and constitutes a legal, valid and binding obligation enforceable against it in accordance with the terms hereof and its obligations under this contract shall be legally valid, binding and enforceable against it in accordance with the terms thereof
- 6. The execution, delivery and performance of this contract shall not conflict with, result in the breach of, constitute a default under, or accelerate performance required by any of the applicable laws or any covenant, contract, arrangement, understanding, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected
- 7. There are no actions, suits or proceedings pending or, to its knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi-judicial or other authority, the outcome of which may result in the default or breach of this contract or which individually or in the aggregate may result in any material impairment of its ability to perform its material (including any payment) obligations under this contract.
- 8. It has no knowledge of any violation or default with respect to any order, writ, injunction or any decree of any court or any legally binding order of any government instrumentality which may result in any adverse effect on the WDRA's ability to perform its obligations under this contract and no fact or circumstance exists which may give rise to such proceedings that would adversely affect the performance of its obligations under this contract.
- 9. It has complied with applicable laws in all material respects
- 10. All information provided by it in the RFP in connection with the project is, to the best of its knowledge and belief, true and accurate in all material respects
- 11. Upon the System Integrator performing the covenants herein, it shall not at anytime during the term hereof, interfere with peaceful exercise of the rights and discharge of the obligations by the System Integrator, in accordance with this contract.
- 12. In the event that any occurrence or circumstance comes to the attention of either party that renders any of its aforesaid representations or warranties untrue or incorrect, such party shall immediately notify the other party of the same. Such notification shall not have the effect of remedying any breach of the representation or warranty that has been found to be untrue or incorrect nor shall it adversely affect or waive any obligation of either party under the contract.

7. Risk distribution

7.1. Transfer of ownership

- With the exception of software and materials used to develop the system, the ownership of the system developed (NWRS), information technologies and other goods shall be transferred to the WDRA at zero cost at go-live or otherwise under terms that may be agreed upon and specified in the contract.
- 2. Ownership and the terms of usage of the software and materials supplied under the contract shall be governed by clause 4.1 <u>Copyright</u> and any elaboration in the technical requirements.

7.2. Extension of contract

1. At the end of 3 years from complete roll-out, the System Integrator would need to submit a proposal expressing his interest in continuing this "contract" for a further period of 3 years. The System Integrator would need to provide the quotes for these services in the section 4.2.3 in the bid forms section of the RFP. WDRA shall consider this proposal after satisfying itself about the

technological and commercial soundness of the proposal. Based on the satisfaction of WDRA, it shall enter into negotiations with the System Integrator for renewal of this "Contract". Upon successful conclusion of negotiations, the System Integrator shall upgrade the systems / technology, as required, and operate the same for a further period.

7.3. Insurances

- 1. The System Integrator shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the contract, the insurance set forth below. The identity of the insurers and the form of the policies shall be subject to the approval of the WDRA, who should not unreasonably withhold such approval.
 - a. Cargo insurance during transport as applicable, 110 percent of the price of the information technologies and other goods in a freely convertible currency, covering the goods from physical loss or damage during shipment through receipt at the project site.
 - b. Installation "All risks" insurance as applicable, 110 percent of the price of the information technologies and other goods covering the goods at the site from all risks of physical loss or damage (excluding only perils commonly excluded under "all risks" insurance policies of this type by reputable insurers) occurring prior to go-live of the system.
 - c. Third-Party liability insurance amount of insurance will be as required by the law of the land. The insurance shall cover the period from the contract effective date until the contract expiry / completion date. it shall Cover bodily injury or death suffered by third parties (including the WDRA's personnel) and loss of or damage to property (including the WDRA's property and any subsystems that have been accepted by the WDRA) occurring in connection with the supply and installation of the negotiable warehouse receipt system (NWRS).
 - d. Automobile liability insurance in accordance with the statutory requirements prevailing in the WDRA's country, covering use of all vehicles used by the System Integrator (whether or not owned by them) in connection with the execution of the contract.
- 2. The WDRA shall be named as co-insured under all insurance policies taken out by the System Integrator pursuant to point 1 of this clause, except for the third-Party liability, shall be named as co-insured under all insurance policies taken out by the System Integrator pursuant to point 3 of this clause except for cargo insurance during transport. All insurers' rights of subrogation against such co-insured for losses or claims arising out of the performance of the contract shall be waived under such policies.
- 3. The System Integrator shall deliver to the WDRA certificates of insurance (or copies of the insurance policies) as evidence that the required policies are in full force and effect.
- 4. If the System Integrator fails to take out and/or maintain in effect the insurance referred to in this clause, the WDRA may take out and maintain in effect any such insurance and may from time to time deduct from any amount due the System Integrator under the contract any premium that the WDRA shall have paid to the insurer or may otherwise recover such amount as a debt due from the System Integrator.

7.4. Force majeure

1. Notwithstanding anything contained in the tender document, the System Integrator shall not be liable for liquidated damages or termination for default, if and to the extent that, it's delay in

performance or other failures to perform its obligations under the contract is the result of an event of force majeure.

- 2. For purposes of this clause "Force majeure" means an event beyond the control of the System Integrator and not involving the System Integrator's fault or negligence and which was not foreseeable. Such events may include wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargos. The decision of the WDRA regarding force majeure shall be final and binding on the System Integrator.
- 3. If either party is prevented, hindered, or delayed from or in performing any of its obligations under the contract by an event of force majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances of the event of force majeure within fourteen (14) days after the occurrence of such event.
 - a. If a force majeure situation arises, the System Integrator shall promptly notify to the WDRA in writing, of such conditions and the cause thereof. Unless otherwise directed by the WDRA in writing, the System Integrator shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.
- 4. The party or parties affected by the event of force majeure shall use reasonable efforts to mitigate the effect of the event of force majeure upon its or their performance of the contract and to fulfill its or their obligations under the contract

8. Change in contract elements

8.1. Changes to the system

- Both parties agree that the intent of this RFP is to establish an initial set of service offerings. WDRA recognizes that, as the use of these services expands, it is possible that additional services and / or service categories will be needed.
 - a. The System Integrator shall submit to WDRA, "Change estimate proposal," which shall be an estimate of the cost of preparing the change proposal, plus a first approximation of the suggested approach and cost for implementing the changes as per the unit rates provided in the commercial bid.
 - b. The pricing of any change shall, as far as practicable, be calculated in accordance with the rates and prices included in the contract.
- 2. In addition, WDRA recognizes that from time to time hardware and software products that are provided as part of System Integrator services will be upgraded or replaced as technology evolve.
 - a. Replacement and / or supplemental hardware and software products that meet or exceed the minimum proposal requirements may be added with the prior approval of WDRA.
 - b. For this purpose, a change order procedure will be followed. WDRA may request a change order in the event of actual or anticipated change(s) to the agreed scope of work, services, deliverables and schedules.
 - c. The System Integrator will have to prepare a change order reflecting the actual or anticipated change(s) including the impact on deliverables schedule. The System Integrator will have to carry out such services as required by WDRA at mutually agreed terms and conditions.

- 3. The System Integrator will have to agree that the price for incremental offering cannot exceed the original proposed cost and WDRA reserves the right to re-negotiate the price at the unit rates provided in the commercial bid. WDRA has the right to order as much as it wants at those rates.
- 4. The System Integrator will have to agree to submit the request to add new services or service categories on its letterhead signed by a representative authorized to bind the organization.
- 5. WDRA is under no obligation to honor such requests to add service categories or amend this contract.
- 6. As a method for reviewing System Integrator services and WDRA requirements, WDRA will sponsor regular reviews to allow an exchange of requirements and opportunities.
- 7. All quantities mentioned in this RFP are indicative. The quantities of components to be procured as part of this tender can be varied by WDRA. This also includes the right to modify the number of warehouses, offices, training centers etc.
- 8. WDRA will reserve the right to enter into pricing discussions with the chosen System Integrator at more favourable terms in case such terms are offered in the industry at that time for projects of similar and comparable size, scope and quality.

8.2. Termination of contract

- 1. Under this contract, WDRA may, by written notice terminate the services of the System Integrator in the following ways:
 - a. Termination by default for failing to perform obligations under the contract if the quality is not up to the specification, or in the event of non adherence to time schedule or in cases of engaging in corrupt or fraudulent practices in competing for or in executing the contract.
 - b. Termination for convenience in whole or in part thereof, at any time.
 - c. Termination for insolvency if the System Integrator becomes bankrupt or otherwise insolvent.
- 2. Before termination WDRA shall give 30 days' notice in writing to the System Integrator to rectify the defects and bring the schedule back to the timelines of this contract. upon termination of the contract, payment shall be made to the System Integrator for:
 - a. Services satisfactorily performed and reimbursable expenditures prior to the effective date of termination
 - b. Any expenditure actually and reasonably incurred prior to the effective date of termination
- 3. In case of termination, System Integrator would cease all further work, except for such work as the WDRA may specify in the notice of termination for the sole purpose of protecting that part of the system already executed, or any work required to leave the site in a clean and safe condition. The System Integrator shall deliver to the WDRA all nonproprietary drawings, specifications, and other documents prepared by the System Integrator as of the date of termination in connection with the system.
- 4. No consequential damages shall be payable to the System Integrator in the event of such termination.

8.3. Assignment

Neither the WDRA nor the System Integrator shall, without the express prior written consent of the other, assign to any third party the contract or any part thereof, or any right, benefit, obligation, or interest therein or there under, except that the System Integrator shall be entitled to assign either absolutely or

by way of charge any monies due and payable to it or that may become due and payable to it under the contract.

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

Signed, sealed and delivered by the:

Said _____ (For the first party)

In the presence of:

1.

2.

Signed, sealed and delivered by: XXXX, authorized representative for System Integrator

In the presence of:

1.

2.