Govt. of Bihar

Bihar Industrial Area Development Authority (BIADA)
(A Government of Bihar Undertaking)
1st Floor, Udyog Bhawan, East Gandhi Maidan, Patna – 800004, Bihar

NOTICE FOR INVITING REQUEST FOR PROPOSAL
Ref No: BIADA/RFP/IT/01/2025-2026

Request for Proposal for Selection of Systems Integrator for an Integrated ERP

BIADA plans to implement an ERP system to streamline its organizational activities and business processes. This initiative aims to standardize operations across key functional areas, including planning, industrial area development, land allotment, service delivery, investment promotion, inventory management, vendor management, finance and accounts, and human resources.

The project will involve the complete digitization of the land allotment system, HR functions, financial and accounting processes, and project management. It will also incorporate automated fund flow, expense tracking, and system-generated reporting, ensuring minimal to no manual intervention.

Scope of work and details of the work can be accessed from Bihar e-procurement Portal https://eproc2.bihar.gov.in/.

Sl. No.	Particulars	Details
1	Date of issue of RFP	10/06/2025
2	Start date of downloading the RFP	16/06/2025
3	Last date of submission of queries through email	23/06/2025 4:00 PM
4	Pre-Bid Meeting	24/06/2025 3:00 PM
5	Last date for Bid Submission (Online)	10/07/2025 5:00 PM
6	Last date of submission of hard copy of EMD	11/07/2025 11.00 AM Address: Bihar Industrial Area Development Authority, 1st Floor, UdyogBhawan, East Gandhi Maidan, Patna – 800004.
7	Date and time for opening of General cum Technical bids	11/07/2025 4:00 PM
8	Technical Presentation	To be Notified
9	Date and time for opening of Commercial bids	To be Notified

Modifications/amendments/corrigendum if any shall be published on the BIADA website only. BIADA reserves the rights to reject or accept any or all the RFP without assigning any reason thereof.

For further details please visit website **state.bihar.gov.in/prdbihar**

PR- 05800 (B & C) 2025-26

Deputy General Manager (IT)
BIADA, Patna

नशे की मार, बर्बाद करे सुखी परिवार।

Request for Proposal

Selection of Systems Integrator For
An Integrated ERP Solution
For
Bihar Industrial Area Development Authority
A Government of Bihar Undertaking

Udyog Bhawan, East Gandhi Maidan Patna, Bihar –
800 004

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Glossary

#	Terms	Definition
1	ATS	Annual Technical Support
2	A&M	Approach & Methodology
3	CCN	Change Control Notes/Notice
4	COTS	Commercial Off the Shelf
5	CD	Compact Disc
6	CV	Curriculum Vitae
7	DR	Disaster Recovery
8	EMD	Earnest Money Deposit
9	EMS	Enterprise Management System
10	EOI	Expression of Interest
11	ESH	Extended Service Hours
12	FRS	Functional requirement specifications
13	IP	Implementation Partner
14	INR	Indian National Rupee
15	ICT	Information and Communication Technology
16	IT	Information Technology
17	IVRS	Interactive voice response system
18	LoA	Letter of Award
19	LoI	Letter of Intent
20	LLP	Limited Liability Partnership
21	LD	Liquidated Damages
22	MIS	Management information system
23	MCA	Master of Computer Applications
24	MSA	Master Services Agreement
25	O&M	Operations and Maintenance
26	OEM	Original Equipment Manufacturer
27	PBG	Performance Bank Guarantee
28	PAN	Permanent Account Number
29	LCS	Least Cost Selection Method
30	RFE	Request for Empanelment
31	SOA	Service Oriented architecture
32	SOW	Scope of Work
33	SLA	Service Level Agreement
34	SI	Systems Integrator
35	ToR	Terms of Reference
36	UAT	User Acceptance Test
37	GoB	Government of Bihar
38	GoI	Government of India

Definition of terms

Sl no	Term	Definition
1	Agreement /contract	The Agreement entered between the BIADA and the Agency including all attachments, schedules, annexure thereto and all documents incorporated by reference therein and all amendments, corrigendum /corrigenda, changes thereto
2	Bidder	The use of the term "Bidder" in the Tender means the Single Agency offering the proposal.
3	Bid /proposal	Offer by the Bidder to fulfil the requirement of the Client under the RFP/Contract for an agreed price. It shall be a comprehensive technical and commercial response to the Tender
4	Confidential information	All information (whether in written, oral, electronic or other format) which relates to the technical, financial and business affairs, dealers, suppliers, products, developments, operations, processes, data, trade secrets, design rights, know-how, plans, budgets and personnel of each stakeholder and its affiliates which is disclosed to or otherwise learned by the other Party in the course of or in connection with this Agreement (including without limitation such information received during negotiations, location visits and meetings in connection with this Agreement);
5	Deliverables	Products, infrastructure and services agreed to be delivered by the Bidder in pursuance of the agreement as defined more elaborately in the RFP Implementation and the Maintenance phases and include all documents related to the user manual, technical manual, design, process and operating manuals, service mechanisms, policies and guidelines (such as security related, etc.), inter-alia payment and/or process related etc., source code and all its modifications;
6	Go-live	The date of commencement of Operations and Maintenance phase after the successful completion of each Phase (FAT and acceptance of the overall solution by the BIADA)
7	Project implementation	Project Implementation as per the testing standards and acceptance criteria prescribed by BIADA or its nominated agencies;
8	Request for Proposal/ Tender Document	Written solicitation that conveys to the Bidder, requirements for products/ services that the BIADA intends to buy and implement
9	SLA	The level of service and other performance criteria which will apply to the Services delivered by the Bidder; Performance and Maintenance SLA executed as part of the Master Service Agreement
10	SI	The bidder who is qualified & successful in the bidding process and is given the award of Contract and will be referred to as System Integrator (SI)/Implementation Agency

1. INVITATION FOR BIDS

I. As per direction, tenders are invited through e-procurement portal of government of Bihar, from eligible, reputed, qualified Information Technology (IT) firms with sound technical and financial capabilities for design, development, implementation and maintenance of an end-to-end ERP solution as detailed out in the scope of work under "Terms of Reference" section of this RFP document. This invitation to bid is open to all bidders meeting the minimum eligibility criteria as mentioned in the "Evaluation Criteria and Qualification Criteria" section of this RFP document.

II.

Sl. No.	Bid Security	Period of Completion	Cost of Bidding Document
1	INR 20, 00, 000 (Twenty Lacs Rupees Only)	For Implementation (Final Go Live) – 32 Weeks For Support and Warranty- 60 months from Final Go Live	INR 10,000/-

III. Bidders are advised to note the eligibility and minimum qualifying criteria specified in the Instruction to Bidders and "Evaluation and Qualification Criteria" Section of bid document.

IV. Bidding documents: The Bidder can download the RFP document(s) from the website https://eproc2.bihar.gov.in. The bid fee shall be submitted online of INR 10,000/- (INR Ten thousand only). The fee should be submitted along with the bidder's proposal (Proposal). Proposals received without or with inadequate RFP Document fees shall be rejected.

V. It will be the responsibility of the bidder who is submitting the bid on downloaded bidding documents to check and see if any addendum/Corrigendum is issued in this regard on the website from time to time and ensure submission of bid along with all addendum/Corrigendum.

VI. Earnest Money Deposit (EMD): Bidders shall submit an EMD of INR 20 Lacs (20, 00,000/-) either through online mode or in the form of Bank guarantee (in the format specified in Appendix I: Form 3) and should be valid for 6 months from the due date of the RFP.

VII. BIADA Account Details (In case of BG):

BIADA ACCOUNT DETAILS	A/C Holder Name	BIADA
	NAME OF BANK	IDBI Bank
	BRANCH NAME	Frazer Road Patna
	ACCOUNT TYPE	Saving
	IFSC CODE	IBKL0000140
	ACCOUNT DETAILS	140104000211543
	CONTACT No.	0612-2675898

VIII. Address for Communication: Interested eligible Bidders may obtain further information from the following address:

Executive Director (Operations),
BIADA, Udyog Bhawan, East Gandhi Maidan, Patna 800004

2. Fact Sheet

Important Dates

#	Particular	Details
1	Publication of Bid	16/06/2025
2	Last date of submission of queries through email	23/06/2025 4:00 PM
3	Pre-Bid Meeting	24/06/2025 3:00 PM
4	Last date for Bid Submission (Online)	10/07/2025 5:00 PM
5	Last date of submission of hard copy of EMD	11/07/2025 11:00 AM
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7	Technical Presentation	To be Notified
8	Date and time for opening of Commercial bids	To be Notified

#	Topic
1	**The method of selection is: Least Cost Based Selection (L1)** The Bidder shall be selected based on Least Cost Selection (L1), whereby the bids getting technically qualified would be further taken forward for financial bid evaluation.
2	**Non-Refundable fee for RFP documents**= Rs 10,000/- (Rupees ten Thousand Only) RFP can be downloaded from website: https://eproc2.bihar.gov.in. Bidders are required to submit the tender fee online along with the Proposal.
3	**Tender Processing fee=** Rs 5,000/- + applicable taxes through e-payment (NEFT/RTGS, Net Banking, Credit/Debit Card) only, else bid will be rejected
4	Earnest money deposit of INR 20,00,000/- (INR Twenty Lakhs Only) can be paid either through online mode. [OR] Bank guarantee in the format prescribed at Appendix I-Form-3. Exemption of EMD for MSME registered companies as per MSME, Govt. of India Norms is allowed under the provisions of Bihar Financial Rules (Rule 131O – "Bid Security) the bidders registered with National Small Industries Corporation (NSIC) or the concern Department are exempted from payment of Bid Security". However, the bidders are required to submit copy of the registration certificate, valid on the date of submission, for availing this exemption.
5	A pre-bid meeting will be held on the date mentioned. The name, address, and telephone numbers of the nodal officer is: **Executive Director-Operations,** **BIADA, Udyog Bhawan, East Gandhi Maidan, Patna 800004** Email Address- ed.operations-biada@gov.in All queries should be received on or before the mentioned date either through post, or email.

6	Proposals should be submitted in the following language(s): English
7	Proposals must remain valid for 180 days from the last date of submission date.
8	Technical and Commercial Proposal shall be uploaded on e-procurement portal, https://eproc2.bihar.gov.in, Original copy of the EMD as the cost of the bid and affidavit shall be submitted at one of the addresses mentioned below.
9	Original copy of the EMD in the form of BG should be submitted to any of the address mentioned below: Addressed To Bihar Industrial Area Development Authority Udyog Bhawan, East Gandhi Maidan Patna – 04. Last date & time of submission As mentioned above

3. Background information

3.1 Basic Information

a) BIADA, invites responses ("Tenders") to this Request for Proposals ("RFP") from reputed Information Technology (IT) service providers / systems implementation agencies ("Bidders") for the provision of ERP System Implementation Services as described in Section 8 of this RFP, "Terms of Reference"

b) Any contract that may result from this Government procurement competition will be issued for a term of 5 years after Go-live.

c) The Purchaser reserves the right to (may), with concurrence of the bidder, extend the Term for a period or periods of up to one year with a maximum of two such extensions on the same terms and conditions, subject to the Purchaser's obligations at law.

d) Proposals must be received not later than time, date and venue mentioned in the Fact Sheet. Proposals that are received late will not be considered in this procurement process.

3.2 Project Background

BIADA intends to implement ERP for PMS (Project Management System) and other organizational activities and business processes conducted by it. Along with this, BIADA would also like to standardize its processes for planning, industrial area development, land allotment, service delivery, investment promotion, inventory, vendor management, finance & accounts, and human resources by introducing an ERP system.

The project will include computerization of the entire Land Allotment system, HR, Finance and Accounting process, Project Management which includes the automated project fund flow and expense tracking and system generated reports. The process would have no or very limited manual intervention.

The objective of this assignment is to strengthen the functioning of BIADA through automation of business process with minimal physical movement of file. The initiatives aims to bring following valuable changes in organization processes:
- Reduced process time through seamless movement of file in system
- Tracking of the process through system dashboard
- Increased transparency and accountability

3.3 Key outcomes expected from the ERP system

With the implementation of the proposed ERP System across the organization, BIADA intends to automate and streamline the operations, monitoring, reporting and information-based decision making. Some of the expected benefits are:

- Facilitate effective operations and aid decision making by management through automation
- Remove redundancies and increase efficiencies in current operations and increase overall effectiveness
- Increase visibility of operations that enables informed decision making
- Help BIADA officials in proper planning and optimizing the administrative work.
- Help various stakeholders in better reporting

- Streamlining of various processes related to Industrial Area Development and Land/shed Allotment
- Streamlining of various processes related to Investment Promotion activities.
- Streamlining of various processes related to Court Case Management system.
- Increasing efficiency by integrated view of end-to-end processes and workflows for various organization and business functions ranging from Establishment related functions to Vendor Management functions
- Implementing system driven notification and alerts at various levels for various jobs will help to increase the ease of decision making and problem solving more effectively.
- Better coordination between operations and management through integrated system.
- Reduce redundancy in processes by capturing data at the source and in real time.
- Reduce data manipulation by integrating data security and automatically read data.
- Standardize and streamline current processes to increase efficiency and pace.
- Centralized consolidation of data and information will help to produce real-time reports of the status of any project or procurement sub-functions. This will help to strengthen more efficient and informed planning and positioning of resources like finance and manpower at various levels.
- Leverage IT as decision support systems to handle the dynamic nature of BIADA's business and service delivery framework.
- KPI driven system for the management to measure the performance and improvement areas within the organization and various stakeholders functioning with BIADA.
- The system will also help to integrate with various stake holders on real-time to get the current and proper information for decision making.

4. Instructions to Bidders

4.1 General

a) While every effort has been made to provide comprehensive and accurate background information and requirements and specifications, Bidders must form their own conclusions about the solution needed to meet the requirements. Bidders and recipients of this RFP may wish to consult their own legal advisers in relation to this RFP.

b) All information supplied by Bidders may be treated as contractually binding on the Bidders, on successful award of the assignment by the Purchaser based on this RFP.

c) No commitment of any kind, contractual or otherwise shall exist unless and until a formal written contract has been executed by or on behalf of the Purchaser. Any notification of preferred Bidder status by the Purchaser shall not give rise to any enforceable rights by the Bidder. The Purchaser may cancel this public procurement at any time prior to a formal written contract being executed by or on behalf of the Purchaser.

d) This RFP supersedes and replaces any previous public documentation & communications, and Bidders should place no reliance on such communications.

4.2 Fraud and Corrupt Practices

a. The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this RFP, the Purchaser shall reject a Proposal without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices") in the Selection Process. In such an event, the Purchaser shall, without prejudice to its any other rights or remedies, forfeit and appropriate the Bid Security or Performance Security, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to the Authority for, inter alia, time, cost and effort of the Authority, in regard to the RFP, including consideration and evaluation of such Bidder's Proposal.

b. Without prejudice to the rights of the Purchaser and the rights and remedies which the Purchaser may have under the LOI or the Agreement, if a Bidder or Systems Implementation Agency, as the case may be, is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Selection Process, or after the issue of the LOI or the execution of the Agreement, such Bidder or Hardware Supplier shall not be eligible to participate in any tender or RFP issued by the Purchaser during a period of 2 (two) years from the date such Bidder or Hardware Supplier, as the case may be, is found by the Purchaser to have directly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

c. For the purposes of this Section, the following terms shall have the meaning hereinafter respectively assigned to them:
   — "corrupt practice" means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Purchaser who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOI or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Purchaser, shall be deemed to constitute influencing the actions of a person connected with the Selection Process); or (ii) save as provided herein, engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of the Purchaser in relation to any matter concerning the Project;
   — "Fraudulent practice" means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process.
   — "Coercive practice" means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person's participation or action in the Selection Process.
   — "Undesirable practice" means (i) establishing contact with any person connected with or employed or engaged by Purchaser with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest;

and

— "Restrictive practice" means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Selection Process.

4.3 Conflict of Interest

a. A Bidder shall not have a conflict of interest that may affect the Selection Process or the Solution delivery (the "Conflict of Interest"). Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, the Purchaser shall forfeit and appropriate the EMD, if available, as mutually agreed genuine pre-estimated compensation and damages payable to the Purchaser for, *inter alia*, the time, cost and effort of the Purchaser including consideration of such Bidder's Proposal, without prejudice to any other right or remedy that may be available to the Purchaser hereunder or otherwise.

b. The Purchaser requires that the Implementation Agency provides solutions which at all times hold the Purchaser's interests paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The Systems Implementation Agency shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of the Purchaser.

c. Without limiting the generality of the above, a Bidder shall be deemed to have a Conflict of Interest affecting the Selection Process, if:

   i. the Bidder, its consortium member (the "Member") or Associates (or any constituent thereof) and any other Bidder, its consortium member or Associate (or any constituent thereof) have common controlling shareholders or other ownership interest; *provided that this disqualification shall not apply in cases where the direct or indirect shareholding or ownership interest of an Bidder, its Member or Associate (or any shareholder thereof having a shareholding of more than 5 per cent of the paid up and subscribed share capital of such Bidder, Member or Associate, as the case may be)* in the other Bidder, its consortium member or Associate is less than 5% (five per cent) of the subscribed and paid up equity share capital thereof. For the purposes of this Clause, indirect shareholding held through one or more intermediate persons shall be computed as follows:

     • where any intermediary controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the "Subject Person") shall be taken into account for computing the shareholding of such controlling person in the Subject Person; where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on

     • a proportionate basis; provided, however, that no such shareholding shall be reckoned under this Sub-clause if the shareholding of such person in the intermediary is less than 26% (twenty-six per cent) of the subscribed and paid up equity shareholding of such intermediary; or

   ii. a constituent of such Bidder is also a constituent of another Bidder; or

   iii. such Bidder or its Associate receives or has received any direct or indirect subsidy or grant

       from any other Bidder or its Associate; or

    iv.   such Bidder has the same legal representative for purposes of this Application as any other Bidder; or

    v.   such Bidder has a relationship with another Bidder, directly or through common third parties, that puts them in a position to have access to each other's' information about, or to influence the Application of either or each of the other Bidder; or

    vi.   there is a conflict among this and other Software solution and services assignments of the Bidder (including its personnel and other members, if any) and any subsidiaries or entities controlled by such Bidder or having common controlling shareholders. The duties of the Systems Implementation Agency will depend on the circumstances of each case. While providing software implementation and related solutions to the Purchaser for this assignment, the Systems Implementation Agency shall not take up any assignment that by its nature will result in conflict with the present assignment; or

    vii.   A firm hired to provide Software solution and services for the implementation of a project, and its Members or Associates, will be disqualified from subsequently providing goods or works or services related to the same project;

    d.   A Bidder eventually appointed to implement software solutions for this Project, its Associates, affiliates and the Financial Expert, shall be disqualified from subsequently providing goods or works or services related to the construction and operation of the same Project and any breach of this obligation shall be construed as Conflict of Interest; provided that the restriction herein shall not apply after a period of 12 months from the completion of this assignment; provided further that this restriction shall not apply to software solutions delivered to the Purchaser in continuation of this systems implementation or to any subsequent systems implementation executed for the Purchaser in accordance with the rules of the Purchaser.

4.4 Compliant Proposals / Completeness of Response

    a)   Bidders are advised to study all instructions, forms, terms, requirements and other information in the RFP documents carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications.

    b)   Failure to comply with the requirements of this paragraph may render the Proposal non-compliant and the Proposal may be rejected. Bidders must:
- Include all documentation specified in this RFP;
- Follow the format of this RFP and respond to each element in the order as set out in this RFP
- Comply with all requirements as set out within this RFP.

4.5 Pre-Bid Meeting & Clarifications

4.5.1 Pre-bid Meeting

    a.   Purchaser shall hold a pre-bid meeting with the prospective Bidders as per information given in the fact sheet in Section 2 above.

    b.   The Bidders will have to ensure that their queries for pre-bid meeting should reach the point of contact (Nodal Officer) through email only as mentioned in the fact sheet in section 2 above.

    c.   The queries should necessarily be submitted in the following format **(To be submitted in editable MS**

Excel and PDF file format only)

#	RFP document reference(s) (Section & page number)	Content of RFP requiring clarification(s)	Points of clarification
1.			
2.			
3.			

d. Purchaser shall not be responsible for ensuring that the Bidders' queries have been received by them. Any requests for clarifications post the indicated date and time may not be entertained by the Purchaser.

4.5.2 Responses to Pre-Bid Queries and Issue of Corrigendum

a. The Nodal Officer notified by the Purchaser will endeavor to provide timely response to all queries. However, Purchaser makes no representation or warranty as to the completeness or accuracy of any response made in good faith, nor does Purchaser undertake to answer all the queries that have been posed by the Bidders.

b. At any time prior to the last date for receipt of bids, Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the RFP Document by a corrigendum.

c. The corrigendum (if any) & clarifications to the queries from all Bidders will be posted on the https://eproc2.bihar.gov.in and may be emailed to all participants of the pre-bid conference.

d. Any such corrigendum shall be deemed to be incorporated into this RFP.

e. To provide prospective Bidders reasonable time for taking the corrigendum into account, the Purchaser may, at its discretion, extend the last date for the receipt of Proposals.

4.5.3 Key instructions of the bid

A. Right to Terminate the Process
   a. Purchaser may terminate the RFP process at any time and without assigning any reason. Purchaser makes no commitments, express or implied, that this process will result in a business transaction with anyone.
   b. This RFP does not constitute an offer by the Purchaser. The Bidder's participation in this process may result Purchaser selecting the Bidder to engage towards execution of the subsequent contract.

B. RFP document fees
   a. The Bidder will download the RFP document(s) from the website htpps://eproc2.bihar.gov.in . The bid fee of INR 10,000 (INR Ten thousand only) should be submitted online. The RFP document fee must be submitted with proposal. Proposals received without or with inadequate RFP document fees shall be rejected.

C. Tender Processing document fees
   a. The bidder will have to pay a one-time Tender Processing Fee of INR 5,000 + Applicable Taxes (INR Five thousand + Applicable Taxes only) is mandatorily to be paid online through internet payment gateway (Credit card/debit card), Net Banking, NEFT/RTGS.

D. Earnest Money Deposit (EMD)
   a. Bidders shall submit an EMD of INR 20 Lacs (20, 00,000/-) either through online mode OR bank

guarantee (in the format specified in Appendix I: Form 3) and should be valid for 6 months from the last date of submission of proposal.

b. EMD of all unsuccessful Bidders would be refunded by the Purchaser within 2 months of the Bidder being notified as being unsuccessful. The EMD, for the amount mentioned above, of successful Bidder would be returned upon submission of the Performance Bank Guarantee as per the format provided in Appendix III.

c. The EMD amount is scan free and will be refundable to the unsuccessful Bidders without any accrued interest on it.

d. Proposals not accompanying EMD or containing EMD with infirmity (ies) (relating to the amount or validity period etc.), mentioned above, shall be summarily rejected.

e. The EMD may be forfeited in the event of:

- A Bidder withdrawing its bid during the period of bid validity
- A successful Bidder fails to sign the subsequent contract in accordance with this RFP
- The Bidder being found to have indulged in any suppression of facts, furnishing of fraudulent statement, misconduct, or other dishonest or other ethically improper activity, in relation to this RFP
- A Proposal contains deviations (except when provided in conformity with the RFP) conditional offers and partial offers.

4.5.4   E-procurement Process related Information

Submission of Proposals (Through electronic mode only)

1. The Bidder shall submit his bid/tender on e-Procurement 2.0 platform at https://eproc2.bihar.gov.in.

2. The Bidder must have the Class II/III Digital Signature Certificate (DSC) and e-Tendering User-id of the e-Procurement website before participating in the e-tendering process. The Bidder may use their DSC if they already have the DSC. They can also take DSC from any of the authorized agencies. For user-id they must get registered themselves on e-procurement website https://eproc2.bihar.gov.in and submit their bids online on the same. Offline bids shall not be entertained by the Tender Inviting Authority for the tenders published in e-Procurement 2.0 platform.

3. The Bidders shall submit their eligibility and qualification details, Technical bid, Financial bid etc., in the online standard formats given in e-Procurement 2.0 website. The Bidders shall upload the scanned copies of all the relevant certificates, documents etc., in support of their eligibility criteria / technical bids and other certificate /documents in the e-Procurement 2.0 web site. The Bidder shall digitally sign on the supporting statements, documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity. The Bidder shall attach all the required documents for the specific tender after uploading the same during the bid submission as per the tender notice and bid document.

4. All the required documents should be attached at the proper place as mentioned in the e-forms otherwise the tender of the Bidder will be rejected.

5. Tender Processing Fee (TPF)to be paid through **e-Payment** mode (i.e., NEFT / RTGS, Net Banking, Credit / Debit Card) only.

6. Cost of BOQ/ Form Fee to be paid through **e-Payment** mode (i.e., NEFT / RTGS, Net Banking, Credit / Debit Card) only.

7. "Earnest Money Deposit (EMD) can be paid either through online mode or manual mode (BG). In case of manual mode of payment of EMD, the original hardcopy of the EMD i.e., BG that should be submitted in the tendering authority office within the next working day after tender closing date."

8. The tender opening will be done online only.

9. Any corrigendum or date extension notice will be given on the e-Procurement website only.

10. For support related to e-tendering process, Bidders may contact at mentioned below:
    Toll Free No. 1800 572 6571,
    Email Id: - eproc2support@bihar.gov.in
    Note: "Bids along with necessary online payments must be submitted through e-Procurement portal https://eproc2.bihar.gov.in   before the date and time specified in the NIT/RFP. The department/Tendering Authority doesn't take any responsibility for the delay / Non-Submission of Tender / Non-Reconciliation of online Payment caused due to Non-availability of Internet Connection, Network Traffic / Holidays or any other reason."

5. Preparation of Proposal

a. Bidders should submit their responses as per the formats given in this RFP which is to be uploaded on the website https://eproc2.bihar.gov.in
b. Please note that prices should not be indicated in the technical proposal but should only be indicated in the commercial proposal.

5.1 Bidder's authorized signatory

A Proposal should be accompanied by an appropriate board resolution or power of attorney in the name of an authorized signatory of the Bidder stating that he is authorized to execute documents and to undertake any activity associated with the Bidder's Proposal.

5.2 Proposal preparation costs

The Bidder shall be responsible for all costs incurred in connection with participation in the RFP process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal, in providing any additional information required by Purchaser to facilitate the evaluation process, and in negotiating a definitive contract or all such activities related to the bid process.

Purchaser will in no event be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

5.3 Language

The Proposal should be filled by the Bidder in English language only. If any supporting documents submitted are in any language other than English, translation of the same in English language is to be duly attested by the Bidders. For purposes of Proposal evaluation, the English translation shall govern.

5.4 Venue & Deadline for Submission of Proposal

The response to RFP must be submitted on the e-procurement portal https://eproc2.bihar.gov.in by the date and time specified in the RFP. Any proposal submitted on the portal after the above deadline will not be accepted and hence shall be automatically rejected. Purchaser shall not be responsible for any delay in the submission of the documents.

5.5 Proposals received after designated time of submission

Bids submitted after due date will not be accepted by e-procurement portal https://eproc2.bihar.gov.in and hence will automatically be rejected. The purchaser shall not be responsible for any delay in the online submission of the proposal.

5.6 Download ability / Visibility of the uploaded document

The bidder shall ensure that the document uploaded on the e-procurement portal is clearly visible and downloadable.

5.7 Format and Numbering of the uploaded document

The bidder shall ensure that the documents uploaded are correctly numbered so that any specific document can be easily and quickly found using the appropriate serial/page no. All documents shall only be uploaded in the formats mentioned here: PDF, MS Office, Compatibility Mode, and JPEG Format. The unsuccessful opening or downloadability of documents which are uploaded in any format other than those mentioned above shall not be entitled for any claim whatsoever.

5.8 Issues in uploading document due to internet connectivity

No claims shall be entertained owing to issues of internet connectivity. The bidders are advised to upload the bid online well in advance of the deadline to avoid difficulties.

6. Deviations

The Bidder may provide deviation to the contents of the RFP document in the format prescribed in Form 10.

The Proposal evaluation committee would evaluate and classify them as "material deviation" or "non-material deviation." In case of material deviation, the committee may decide to "monetize" the value of the deviations, which will be added to the price bid submitted by the Bidder OR declare the bid as non-responsive.

The Bidders would be informed in writing on the committee's decision on the deviation, prior to the announcement of technical scores. The Bidders would not be allowed to withdraw the deviations submitted without the prior consent of the Purchaser.

In case of non-material deviations, the deviations would form a part of the proposal & subsequent agreement.

7. Evaluation & Qualification Criteria

7.1 Evaluation
7.1.1 Evaluation process

a. The Purchaser will constitute a committee to evaluate the responses of the Bidders (Tender Evaluation Committee).
b. The Evaluation Committee constituted by the Purchaser shall evaluate the responses to the RFP and all supporting documents / documentary evidence. Inability of a Bidder to submit requisite supporting documents / documentary evidence may lead to the Bidder's Proposal being declared non-responsive.
c. The decision of the Evaluation Committee in the evaluation of responses to the RFP shall be final. No correspondence will be entertained outside the process of negotiation/ discussion with the Proposal Evaluation Committee.
d. The Evaluation Committee may ask for meetings with the Bidders to seek clarifications on their proposals.
e. The Evaluation Committee reserves the right to reject any or all Proposals based on any deviations contained in them.
f. Each of the responses shall be evaluated as per the criterions and requirements specified in this RFP.

7.1.2 Proposal opening

The Proposals submitted up to the last date and time mentioned above will be opened on the mentioned place, time and date by the Nodal Officer or any other officer authorized by the Purchaser, in the presence of the Bidder's representatives who may be present at the time of opening.

The representatives of the Bidders are advised to carry an identity card or a letter of authority from the Bidding entity to identify their bonafides for attending the opening of the Proposal.

7.1.3 Proposal validity

The offer submitted by the Bidders should be valid for minimum period of 180 days from the last date of submission of the Proposal.

7.1.4 Award criteria

BIADA will award the Contract to the successful bidder whose proposal has been determined to be substantially responsive and has been determined as the most responsive bids as per the standard process.

7.1.5 Right to Accept Any Proposal and To Reject Any or All Proposal(s)

BIADA reserves the right to accept or reject any proposal, and to annul the tendering process / Public procurement process and reject all proposals at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for BIADA action.

7.1.6   Notification of award

Prior to the expiration of the validity period, BIADA will notify the successful bidder in writing or by fax or email, that its proposal has been accepted. In case the tendering process /public procurement process has not been completed within the stipulated period, BIADA, may like to request the bidders to extend the validity period of the bid.

The notification of award will constitute the formation of the contract. Upon the successful bidder's furnishing of Performance Bank Guarantee, BIADA will notify each unsuccessful bidder and return their EMD.

7.1.7   Performance Bank Guarantee (PBG):

Successful bidder must submit PBG within 15 days of the issue of LoI by BIADA @ 10% of the total project value. The PBG must be valid for another six months from the project end date. Failure to comply with the requirements shall constitute sufficient grounds for the forfeiture of the PBG. The PBG shall be released immediately after expiry of contract provided there is no breach of contract on the part of the service provider. No interest will be paid on the PBG.

7.1.8   Signing of Contract

After the BIADA notifies the successful bidder that its proposal has been accepted, BIADA shall enter into a contract, incorporating all clauses, pre-bid clarifications and the proposal of the bidder between BIADA and the successful bidder.

7.1.9   Failure to agree with terms and condition of RFP

Failure of the successful bidder to agree with the Draft Legal Agreement and Terms & Conditions of the RFP shall constitute sufficient grounds for the annulment of the award, in which event BIADA may award the contract to the next best value bidder or call for new proposals from the interested bidders.

7.1.10   Proposal evaluation

a. Initial Proposal scrutiny will be held and to confirm that Proposals do not suffer from the infirmities detailed below. The proposal will be treated as non-responsive, if a Proposal is found to have been:
   - Submitted in manner not conforming with the manner specified in the RFP document
   - Submitted without appropriate EMD as prescribed herein
   - Received without the appropriate power of attorney
   - Containing subjective/incomplete information
   - Submitted without the documents requested in the checklist
   - Non-compliant with any of the clauses stipulated in the RFP
   - Having lesser than the prescribed validity period.
   - The EMD of all non-responsive bids shall be returned to the bidders.

b. All responsive Bids will be considered for further processing as below.

   BIADA will prepare a list of responsive Bidders, who comply with all the Terms and Conditions of the

Tender. All eligible bids will be considered for further evaluation by a committee according to the Evaluation process define in this RFP document. The decision of the Committee will be final in this regard.

7.2 Criteria for evaluation
7.2.1 Pre-qualification (PQ) criteria

S No.	ELIGIBILTY CRITERIA	Documents Required to be Submitted
1	The bidder should be a company incorporated in India under the Companies Act, 1956 or Companies Act 2013 (as amended till date), and subsequent amendments thereto or Partnership firm registered under Indian Partnership Act, 1932 and subsequent amendments thereto or an entity registered under LLP Act 2008 and subsequent amendments thereto. Consortium/Joint-Venture in any form will not be allowed.	• Copy of Certificate of Incorporation
2	The agency should have valid registration with appropriate statutory authorities as required under law. A copy of all such registration such as PAN and GST Tax, etc. must be enclosed.	• Copy of GST Registration Certificate. • Copy of PAN Card
3	The agency should have been in the IT/Software Development field for at least 05 Years.	• Proof of commencement of business • Details of orders executed • Enclose copies of orders
4	Average annual turnover of at least Rs. 40 Crore (Rupees forty Crore Only) from IT/ITeS/Application Development and Implementation Work in the last three (3) Financial years **(FY 2021-22, FY 2022-23 and FY 2023-24)**	• Audited Balance sheet and Profit & Loss Statement by Statutory auditor/chartered Accountant.
5	The agency should have experience of development and Implementation of at least 02 ERP related project in Central/State government /PSU/Co-operative /Autonomous body of project values not less than 3 Crores.	• Completion Certificates from the client; OR • Work Order + Self Certificate of Completion (Certified by the Statutory Auditor); OR • Work Order + Phase Completion/Go-Live Certificate (for ongoing projects) from the client
6	The agency should possess the essential infrastructure, facilities and technical expertise and should have on its payroll at least 100 employees.	• The bidder has to give an undertaking on its letter head that it has the necessary infrastructure and expertise to handle this project and shall not outsource this Project to a third-party. In case of any change of proposed CV, Prior approval from BIADA will be required.
7	The firms having black-listed/debarred in participating in any procurement activities by any State or Central Government or any other govt. organization in India are not allowed to bid.	• Undertaking to this effect shall be submitted by the bidder on his letter head that the agency has not been blacklisted/debarred from participating in tender/bids by any State or Central Govt. organization in India.

8	The agency should have experience of successfully handing government/Co-operative/PSU domain.	• Relevant Work order/experience certificate from department.
9	Certifications	• The bidder should have a valid CMMI Level 3 certificate or above

7.2.2 Technical Qualification Criteria

S. No	Criteria	Basis for Evaluation	Max Marks	Supporting Documents
1.	**ORGANISATION CAPACITY**		**45**	
1A	Average turnover from IT/ITeS/ Application Development and Implementation Work in last 3 years (Turnover in INR Crores)	(i) 40- 50 Crores: 6 marks (ii) >50 and <=60 Crores: 8 marks (iii) >60 Crores: 10 marks	10	Audited Balance sheet and Profit & Loss Statement; OR Certificate from the statutory auditor
1B	The agency should possess the essential infrastructure, facilities and technical expertise and should have on its payroll at least 100 employees.	(i) 100-200 resources: 6 marks (ii) 201-300 resources: 8 marks (iii) More than 300 resources: 10 marks	10	The bidder has to give and undertaking on its letter head that it has the necessary infrastructure and expertise to handle this project and shall not outsource this Project to a third-party.
1C	The agency should have been in the IT/Software Development/Website development projects for at least 05 Years.	(i) More than 5 years: 5 marks (ii) More than 8 years: 10 Marks	10	Completion Certificates from the client; OR Work Order + Self Certificate of Completion (Certified by the Statutory Auditor); OR Work Order + Phase Completion/Go-Live Certificate (for ongoing projects) from the client
1D	The agency should have experience of development and implementation of ERP related project of project values not less than 3 Crores that have either completed or ongoing projects. The work order should have been issued within last 10 years, as on the last date of submission	(i) 2 projects: 5 Marks (ii) 3 projects: 10 Marks (iii) >=4 projects: 15 Marks	15	Completion Certificates from the client; OR Work Order + Self Certificate of Completion (Certified by the Statutory Auditor); OR Work Order + Phase Completion/Go-Live Certificate (for ongoing projects) from the client
2.	**TECHNICAL STRENGTHS**		**25**	
2A	The bidder should have experience in development and implementation of project(s) having mobile app as component for any Central/State government /PSU/Co-operative /Autonomous body in India during last 5 years as on bid date. The project value should be at least Rs 50 lakhs	(i) 1 project: 3 Marks (ii) 2 projects: 5 Marks	05	Completion Certificates from the client; OR Work Order + Self Certificate of Completion (Certified by the Statutory Auditor); OR Work Order + Phase Completion/Go-Live

				Certificate (for ongoing projects) from the client
2B	**Proposed Team:** The proposed personnel should be on the payroll of the bidding company.	• Project Manager-3 Marks • Development Lead-F&A-3 marks • Development Lead-HR-3 marks • Development Lead-PM-3 marks • Programmer-2 Marks • Database Administrator-2 Marks • Business Analyst-2 Marks • Network Administrator-2 Marks	20	**CVs of Proposed Professionals** 1.Qualifications and relevant Experiences 2. Details of all the Projects managed including responsibilities and capacity similar to this assignment. 3. Demonstrated knowledge on the Platform / Technologies to be used related to this assignment. 4. Vendor Certifications and / or memberships on the related technologies / platform to be used related to this assignment.
3.	**APPROACH & METHODOLOGY**		**30**	
	The eligible bidders shall be requested to make a presentation on their proposal/Solution. Project Manager should be present during the Presentation	• Details of solution proposed for the project components along with name of project where these components or similar components have been developed earlier. - **10 Marks** • Understanding of the project-**10 Marks** • System Functionality and implementation approach-**10 Marks**	30	Presentation of prototype/existing similar software application online OR Presentation of Screenshots of prototype/existing similar software application. Proposed solution/Technology stack Innovative solution approaches to be presented through PPT. Proposal in PDF format should be part of technical bid.
	TOTAL		**100**	

7.2.3 Selection Methodology

Bidders, whose bids are responsive, based on minimum qualification criteria / documents as in Pre-Qualification Criteria and score at least 70% in the (given) defined scoring mechanism would be considered technically qualified. Price Bids of such technically qualified Bidders alone shall further be opened. In case numbers of bidders shortlisted is less than the two, then qualification marks may be further relaxed to include top 2 (two) technically qualified bidders, but in any case, the criteria will not be less than 60%.

7.2.3.1 Financial Bid Evaluation

a. The Financial Bids of technically qualified bidders will be opened on the prescribed date in the presence of bidder representatives.

b. Only fixed price financial bids indicating total price for all the deliverables and services specified in this bid document will be considered.

c. The bid price will include all taxes and levies and shall be in Indian Rupees and mentioned separately.

d. Any conditional bid would be rejected.

e. Errors & Rectification: Arithmetical errors will be rectified on the following basis: "If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail".

f. If there is no price quoted for certain material or service by the bidder, then the bidder must provide/implement the material/service at zero cost.

g. The Total Bid Price, as computed by the Purchaser shall be used for the purpose of commercial evaluation of bids.

7.2.3.2 Awarding of Contract:

The Contract will be awarded on Least Cost Selection (L1). The bidder quoting the lowest value (including tax) will be awarded the project. In case, there is a tie on the quoted financial bid amount between two or more bidders, the contract will be awarded to the bidder scoring higher Technical Qualification marks.

The selected bidder shall be the L1 ranked bidder. The second and third bidders shall be kept in reserve and may be invited for negotiations in case the L1 ranked bidder withdraws or fails to comply with the requirement specified in the RFP document.

7.2.4 Manpower Requirement for the Project Implementation

The requirement of key personnel for the project has been listed below for both the phases. The minimum educational qualification and the professional experience of the key personnel has been mentioned in the subsequent section. Indicative profiles with minimum qualifications and experience for the team is given below:

Positions identified for Implementation Team

Phase 1 - Development and Deployment (25 weeks): The below mentioned key personnel will be required in adequate number to complete phase 1.

- Project Manager
- Business Analyst
- Development Leads-(Module wise)
- Programmer
- Database Administrator
- Network Expert

All resources mentioned above should be deployed at the client location during entire development and deployment phase. The SI may deploy any additional resources, if required. Other resourcesmay work remotely in adequate numbers to ensure service levels.

Phase 2 - Operations and Maintenance (5 years): At least two resources will be deployed at the client location as a Project Support Unit to address the functional and change requirements of application. The resource would be a project manager cum business analyst and a database

administrator. Additional resources required for any activity can work remotely, provided it does not breach the service levels. The project manager will be responsible for the engagement of required manpower in adequate numbers.

A helpdesk support unit will be based at the client location for handling users' grievances. The number of required resources would vary as the system stabilizes. An indicative number of support executives required for 5 years has been mentioned below.

Particulars	No. of Support Executives
For 1 year after the deployment	3
For the subsequent 2nd ,3rd, 4th, 5th Year	2

The schedule of the deployed personnel needs to be provided in the form 10.8 and 10.9 of Appendix I

7.2.5   Initial Composition; Full Time Obligation; Continuity of Personnel
- The SI shall ensure that each member of the Key Personnel devotes substantial working time to perform the services to which that person has been assigned as per the proposal.
- The SI shall use commercially reasonable efforts to ensure it retains the services of its Key Personnel, including provisioning of competitive compensation, benefits, and other conditions to its Key Personnel to incentivize them to remain in the employment.
- The SI shall not make any changes to their proposed composition of the Key Personnel and not require or request any member of the Key Personnel to cease or reduce his or her involvement in the provision of the Services during the Term (or agree to any request other than from the Purchaser that would have the same effect):
  a. unless that person resigns, is terminated for cause, dies, is long-term disabled, is on permitted mandatory leave under Applicable Law or retires; or
  b. without Purchaser's prior written consent.

7.2.6   Replacement
The Phase 1 of the project is strictly time-bound and hence during the period

  i. In case the resource has resigned then the Bidder must inform within one week of such resignation.
  ii. The SI shall promptly initiate a search for a replacement and use commercially reasonable efforts (including the expenditure of reasonable sums, such as engaging services of a recruiting firm) to ensure that the role of any member of the Key Personnel is not vacant which could breach the development and deployment timeline of 25 weeks.
  iii. On the new assignment and any replacement of the Key Personnel to the provision of the Services, the SI shall provide the Purchaser with a resume / curriculum vitae and any other information about the candidate that is reasonably requested by the Purchaser.

7.2.7   Attrition
The bidder must ensure that the adequate number of key personnel shall be engaged for their full-time during phase 1. The reduction in their involvement would affect the timeline obligations. Key personnel replacements must be avoided during the period.

7.2.8   Minimum Qualifications for the Manpower

Manpower	Minimum Qualifications
Project Manager	• Minimum Education: MCA/ MBA or B.Tech / B.E. from a reputed institute • Total Exp: At least 10 yrs. • Certification: PRINCE / PMP is desirable • Prior project management experience of at least 3 years of handling such large projects
Development Lead-Finance & Accounts	• Minimum Education: Full Time B.Tech/B.E/MCA • Should have completed 1 full cycle of ERP execution and Implementation as a Finance & Accounts module lead • Total Experience: At least 5 yrs. Experience in the role • Extensive knowledge of financial accounting and auditing under Indian regulations, Treasury Management, Indian Taxation, Fixed Assets Register and Depreciation, Filing of various returns under Company Law and Statutory compliances under various laws etc. • Functional/Technical implementer and Support in Finance (AR/AP/GL/Budget/Asset Management/ Procurement etc.) business processes and practices • Plan, design, audit and implement application database code objects, such as stored procedures, Triggers, Cursors, views, Designing, Tuning, Back Up, Export and Import
Development Lead-HR Management	• Minimum Education: Full Time B.Tech/B.E/MCA • Should have completed 1 full cycle of ERP execution and Implementation as a HR management module lead • Total Experience: At least 5 yrs. experience in project management • Extensive knowledge of HR related business processes and practices
Development Lead-Project Management	• Minimum Education: Full Time B.Tech/B.E/MCA • Should have completed 1 full cycle of ERP execution and Implementation • Total Experience: At least 5 yrs. experience in project management as a Project Management module lead • Demonstrated expertise in all facets of Project management lifecycle, including but not limited to, requirements gathering, staff management, budget management, issue and risk mitigation, and status reporting.
Programmer	• MCA / B.Tech / BE (IT or CS) / with minimum of 5 years of work experience • At least 3 years of experience of working on similar solution
Database Administrator	• MCA / B.Tech / BE (IT or CS) / Certified DBA with minimum of 5 years of work experience with 2 years or more as a DBA for an IT project. • Experience in database activities like instance tuning, schema management, space management, backup and recovery, disaster recovery, data replication, database refresh etc.
Business Analyst	• MCA/ B.Tech / BE (IT or CS) with minimum of 5 years of work experience in Business Analysis/Requirement Gathering • Experience of handling at least two e-Governance projects • Proficiency in writing, MIS reporting, communication, time management and multitasking skills
Network Administrator	• MCA / B.Tech / BE (IT or CS) with CCNA, CCNP certification and minimum of 3 years of work experience with 2 years in a similar role • Thorough knowledge of configuring and/or managing various Networks including Network devices (Router, Switches, Firewall etc.) • In depth knowledge and experience in handling of day-to-day network related activities including network security and other information security areas.

8. TERMS OF REFERENCE (TOR)

8.1 Overall Scope of Work

The scope of work of the implementation can be divided into the following heads –

A. **Application Development, Customization and Implementation**
    a. Development of the Project Implementation plan
    b. Business Requirements and Process Study
    c. Supply, Installation, Configuration & Customization of ERP Solution as per requirement
    d. Application Testing
    e. Quality Review, reporting and approval
    f. Data Digitization and Migration
    g. Linkage with existing applications including digital signature integration. (digital signature will be provided by user)
    h. Project and Product Documentation.
    i. Detailed Post Implementation documents for each and every module and sub-module to be prepared and submitted to the client. Approval of the same from the client to be taken.
    j. Developing and designing of Operational Hand Book for each and every module and sub- modules.

B. **Training and Capacity Building**
    a. Training and Capacity Building requirement
    b. Imparting of regular refresher trainings

C. **User Support and Maintenance of the Integrated ERP application**
    a. Application monitoring and Compliance to Service Level Agreements
    b. Application support including modifications and integration with future systems
    c. Bugs / Fixes Management
    d. Software Change and Version Control
    e. Maintenance of Configuration Information & System documentation

D. **Operations and Maintenance of IT infrastructure/Application**
    a. Help Desk Services
    b. Data Center operations
    c. ATS and Annual Maintenance Contract
    d. Database administration

8.2 Application Development, Customization and Implementation
8.2.1 Development of the Project implementation plan

Upon award of the Contract, the System Integrator shall develop a Detailed Project Plan encompassing the activities specified in the Contract. The contents of the Project Plan shall be as below:
    a. Design and Development plan
    b. Pre-commissioning, Operational and User Acceptance Testing Plan
    c. Delivery and Installation Plan
    d. Training Plan
    e. Post-Warranty Service Plan
    f. Quality Assurance and Control Process details which must include (but not limited to) detailing on Metrics, Reviews, Problem Reporting and Corrective action, System audit etc.
    g. Data Entry Plan/Data Migration plan
    h. Any other item in consultation with BIADA Corporation

8.2.2 Business Requirement and process study

The System Integrator shall do a Business Requirements Study for each sub-department of BIADA. The As-Is processes and To-Be processes of each of these sub-departments will be provided to the System Integrator. Though enough care has been taken to include all the processes, there could be more processes which may need to be captured by the System Integrator. Indicative MIS requirements are mentioned in the To-Be process maps. The System Integrator is, however, expected to capture the detailed reporting requirements of these sub-departments based on discussions with the sub-departments.

The document will indicate the additions/ modification that need to be made to the product to meet the business requirements. It is the responsibility of the System Integrator to demonstrate the best practices available in the proposed ERP and how these best practices affect the output and can be implemented in the existing business processes.

System Integrator shall prepare detailed System Requirement Specifications (SRS) detailing processes for all modules based on functional and Quality-of-Service requirements mentioned in this RFP and additional requirements may be identified in consultation with the Corporation and other stakeholders during the requirement study phase. The SRS approved by BIADA will form the baseline for all subsequent phases of application development and deployment from an application requirements perspective (e.g. for testing, identifying "change" to requirements etc.).

8.2.3 Supply, Installation, Configuration & Customization of Integrated ERP Solution

Supplying, Installing, Configuring, Customizing (as required) and Implementing of the proposed ERP product so as to cover but not limited to the functions:

1. **Human Resource Module**
   - Creation of Employee database for BIADA
   - Leave Management System
   - Payroll Processing
   - EPF and Pension Management System
   - Performance Appraisal System
   - Employee Management
   - Employee directory with detailed profiles
   - Contract management (salary, duration, job position, etc.)
   - Organization chart visualization
   - Departments and job positions
   - Employee work schedule and timesheets
   - Employee skills, certificates, and resume tracking
   - Access rights and role-based permissions
   - Check-in / check-out system
   - Biometric and RFID attendance integration
   - Overtime and leave tracking
   - Shift management
   - Work hours validation
   - Leave request and approval workflow
   - Leave type configuration (sick leave, paid time off, etc.)
   - Public holiday management
   - Leave accrual rules and policies
   - Integration with payroll for leave deductions
   - Salary structure and computation
   - Payslip generation and batch processing

- Tax, social security, and deduction management
- Integration with accounting module
- Bank payment and direct deposit integration
- Employee expense reimbursement
- Travel and expense tracking
- Employee benefits and claims management
- Integration with accounting for reimbursement
- Expense approval workflow

Reports in HR Module
- Employee details report
- Employee attendance report
- Employee contract status report
- Employee work schedule report
- Daily/weekly/monthly attendance summary
- Overtime and working hours report
- Absenteeism report
- Leave balance report
- Approved vs. pending leave report
- Leave by department report
- Leave trends and analytics
- Payroll summary report
- Payslip details per employee
- Salary comparison report
- Payroll liabilities report
- Employee expense summary
- Approved vs. rejected expenses
- Expense by category report

2. **Financial Accounting and Controlling**
   - Computerization of maintenance of financial transactions and other correspondences with robust accounting and audit procedures
   - Computerization for automatic generation of all types of accounting reports project statistics and status reports
   - Creating accounting modules for General Ledger Bank accounting and consolidation reports
   - Computerization of MIS systems through mobile android App, online portal, SMS, and email from beginning to end.

   ### Chart of Accounts & General Ledger
   - Predefined chart of accounts based on country localization
   - Multi-company and multi-currency support
   - General Ledger (GL) with real-time updates
   - Account reconciliation automation
   - Journal entries and manual adjustments

   ### Accounts Payable (Vendor Management)
   - Vendor bills and payments tracking
   - Payment terms and automated due date reminders
   - Batch payments (bulk vendor payments)
   - Supplier reconciliation
   - Integration with bank feeds and third-party payment gateways

Accounts Receivable (Customer Management)
- Customer invoicing (recurring and one-time)
- Payment follow-ups and automated reminders
- Credit notes and refunds
- Multi-currency invoicing
- Customer statements and aging reports

Bank & Cash Management
- Multi-bank account management
- Bank reconciliation (manual & automated)
- Integration with bank feeds (automatic statement imports)
- Cash register management
- Bank transfers and automated payments

Tax Management & Compliance
- Automatic tax calculations (VAT, GST, Sales Tax, Withholding Tax, etc.)
- Country-specific tax reports and compliance settings
- Tax audit support
- Multi-rate and multi-region tax management
- EC Sales List and Intrastat reports for EU companies

Expense Management
- Employee expense submissions
- Automated expense approval workflows
- Integration with payroll for reimbursements
- Receipt scanning and OCR integration

Budgeting & Forecasting
- Budget creation and tracking
- Actual vs. budget variance analysis
- Financial forecasting tools
- Department-wise budget allocation

Fixed Asset Management
- Asset creation and categorization
- Depreciation management
- Automated depreciation schedules
- Asset disposal and revaluation tracking

Multi-Currency & Multi-Company Support
- Exchange rate synchronization
- Multi-currency accounting and reporting
- Consolidated financial reporting for multi-companies
- Intercompany transactions and eliminations

Financial Reporting & Compliance
- Profit & Loss (P&L) statement
- Balance sheet and trial balance
- Cash flow statement
- Tax and audit reports
- Custom financial statements

Payment Integration & Automation
- Integration with payment gateways (Indian banks gateways etc.)
- Automated payment follow-ups
- Direct debit and SEPA payments
- Mobile payments support

Analytical Accounting & Costing
- Analytical accounts for cost tracking
- Profitability analysis by department, project, or product
- Cost center-based accounting

Reports in Accounting Module
Financial Reports
- Profit & Loss Statement
- Balance Sheet
- General Ledger Report
- Trial Balance
- Cash Flow Statement
- Aged Payables & Receivables
- Journal Audit Report

Accounts Payable & Vendor Reports
- Vendor Balance Report
- Outstanding Bills Report
- Payment History Report
- Supplier Reconciliation Report

Accounts Receivable & Customer Reports
- Customer Aging Report
- Customer Statements
- Invoicing Summary Report
- Receipts & Payments Report

Tax & Compliance Reports
- VAT/GST/Sales Tax Report
- Withholding Tax Report
- EC Sales List & Intrastat Report
- Tax Audit Report

Bank & Cash Reports
- Bank Reconciliation Report
- Cash Flow Analysis
- Bank Statements Report

Budget & Forecasting Reports
- Budget vs. Actual Report
- Expense Forecast Report

Fixed Asset Reports
- Asset Depreciation Report
- Asset Valuation Report

Analytical Accounting Reports
- Cost Center Profitability Report
- Project-wise Profit & Loss Report

3. **Project Management Module**
   - Creation of project head with required funding description and necessary details
   - Project Status/ deliverable tracking against listed milestones
   - Expenditure tracking
   - Design process for Purchase order generation and contract management.
   - Design process and IT intervention for SI payment (release of purchase order, subsequent invoicing and payment processing) covering full lifecycle of the same.
   - Design process for asset distribution control and project asset tracking

   Project Management
   - Create and manage multiple projects
   - Kanban, List, Calendar, and Gantt views
   - Project stages and workflows
   - Task dependencies and milestones
   - Project templates for recurring projects

   Task Management
   - Task assignment to team members
   - Subtasks and checklists
   - Drag-and-drop task prioritization
   - Custom fields and tags for categorization
   - Task deadlines and reminders
   - Activity logs and comments on tasks

   Collaboration & Communication
   - Real-time chat and discussion threads
   - File attachments and document sharing
   - Email notifications for task updates
   - Internal and external user access

   Time Tracking & Timesheets
   - Timesheet integration for work hour tracking
   - Start/Stop timer on tasks
   - Billable and non-billable hour tracking
   - Approval workflow for timesheets

   Resource Allocation & Workload Management
   - Assign resources to projects
   - Employee workload balancing
   - Capacity planning dashboard

   Project Costing & Budgeting
   - Budget allocation for projects
   - Cost estimation and tracking
   - Expense logging per task/project
   - Profitability analysis

   Customer & Client Portal

- Share project updates with clients
- Portal access for external stakeholders
- Client feedback collection

Billing & Invoicing Integration
- Automatic invoice generation based on project time and materials
- Fixed-price and time-based billing
- Milestone-based invoicing

Integration with Other Modules
- Sales: Link projects with sales orders
- Accounting: Track project expenses and invoicing
- HR: Assign employees based on roles and skills
- Helpdesk: Convert support tickets into tasks

Reporting & Analytics
- Project progress dashboards
- Task completion rate analysis
- Workload and performance tracking
- Custom report builder for KPIs

Project Reports
- Project Overview Report
- Project Status Report
- Active vs. Completed Projects
- Project Profitability Report

Task Reports
- Task Progress Report
- Overdue Tasks Report
- Task Completion Rate
- Task Load per Employee

Timesheet & Productivity Reports
- Employee Timesheet Report
- Billable vs. Non-Billable Hours Report
- Timesheet Approval Summary

Financial Reports
- Project Budget vs. Actual Report
- Expense Summary by Project
- Revenue by Project Report

Resource Allocation Reports
- Workload Distribution Report
- Employee Utilization Report

4. **Court Case Management Module :-**

- Case database: Stores information about cases, including case records and history
- Case status: Provides information about the status of a case
- Case calendar: Shows pending and upcoming actions
- Dashboard: Provides a personalized view of case status and actions

- Alerts: Sends notifications via SMS or email
- Reports: Generates reports on cases, such as court-wise or type-wise reports
- Document management: Allows users to manage and assemble documents related to cases
- Time tracking: Tracks time spent on cases
- Compliance management: Helps ensure compliance with relevant regulations
- Case file management: Allows users to manage case files from filing to disposal

5. **Investment promotion Module**
   - Database of queries received, leads generated, proposals received
   - System generated response
   - Alert system for all events
   - Email and calling facility through system
   - Integration with proposed GIS Mapping system.
   - Integration with land allotment portal

6. **Reporting, dashboard and Analytics module**
   ERP analytics refers to the process of analyzing data generated by an ERP system to extract valuable insights and drive strategic decision-making. Total number of users will 100 approx. The module consists of following features:

   - Business Reporting: Detailed information enhances business reporting, providing insights into what the organization is doing right and areas for improvement.

   - KPI Monitoring and Customizable Dashboards: ERP analytics tracks key performance indicators (KPIs), aiding stakeholders in making informed decisions allowing users to create personalized dashboards that display essential metrics and performance indicators. Total number of users may be 100 approx. KPI will be decided at the time of system study.

   - Financial Ratios: Analysis of key financial ratios (e.g., liquidity, profitability, solvency).

   - Budgeting and Forecasting: Tools for creating budgets, forecasting financial performance, and comparing against actuals.

   - Scheduled Reports: Automated scheduling and distribution of reports to stakeholders.

7. **Self Service Portal & Mobile Application (Web portal and Mobile Application)**
   Self Service Portal and Mobile application needs to be developed for usage by BIADA officials.

8. **Document Management System:**
   Document Management System: - DMS Application to digitize the documents related to the modules and their management and reporting.
   Document management system should have atleast the following features:
   - Document Creation and Capture
   - Document Storage and Organization
   - Document Access and Security
   - Analytics and Reporting
   - User Interface and Experience

   Document Storage & Organization
   - Centralized document repository
   - Hierarchical folder structure

- Tagging and categorization of files
- Drag-and-drop file upload
- Preview for PDFs, images, and documents

Document Sharing & Collaboration
- Share documents internally and externally
- Public and private document links
- Secure access with role-based permissions
- Real-time comments and discussions on documents

Workflow & Approval Management
- Customizable approval workflows
- Document validation and approval tracking
- Automated actions on document status changes

Integration with Other Modules
- Accounting: Store invoices, bills, and receipts
- HR: Manage employee contracts, resumes, and payroll documents
- Projects: Attach documents to projects and tasks

Document Versioning & History
- Version control with rollback option
- Track modifications and user activity logs
- Compare different versions of documents

Optical Character Recognition (OCR)
- OCR scanning for invoice and receipt processing
- Auto-extract text from scanned documents
- Smart document categorization

Digital Signatures
- Sign documents digitally within ERP
- Send and request signatures
- Legally compliant e-signatures

Access Control & Security
- Role-based document access
- Encryption and secure file storage
- Audit logs for document activity tracking

Document Automation & Rules
- Auto-tagging and categorization
- Automated archiving and retention policies
- Custom workflows for document handling

Mobile & Cloud Support
- Access documents from any device
- Cloud synchronization with Google Drive, Dropbox, etc.

Document Management Reports
- Total number of documents stored
- Document usage statistics
- Documents by category and tags

Workflow & Approval Reports
- Pending vs. approved document report

9. **Website Builder:**
   - **Drag-and-Drop Editor** – Easily build pages without coding.
   - **Customizable Templates** – Pre-designed themes with full customization options.
   - **Responsive Design** – Mobile-friendly layouts that adapt to different screen sizes.
   - **Inline Editing** – Modify text, images, and elements directly on the page.
   - **Multi-Language Support** – Create and manage websites in multiple languages.

10. **Development of existing portals (As per Land Allotment and other policy)**
    - Land & Shed Allotment System (ID Section & IT Section)
    - Service Tracker (Investors & ID Section-HO & Clusters)
    - Account Management System (Accounts Section)
    - Investors Relationship Management System (IP Section)
    - Field Monitoring System (ID Section-HO & Clusters)
    - Inception Management System
    - Project Monitoring System (Technical Section)
    - Cancellation/Possession System
    - Visitor management portal

11. **Integrations of modules**
    - Integration with existing Tally (Accounting Software)
    - Integration with Case Management System-MyKase.in
    - Integration with SIPB Portal
    - Integration with CFMS, Department of Finance, Govt. of Bihar.
    - Integration with eproc 2.0
    - Integration and capable system with Call Centre CRM
    - Development and Integration with proposed BIADA-GIS Mapping System

The modules, as mentioned above, are indicative not exhaustive. The System Integrator shall have to include modules based on the requirements of BIADA Corporation during AS IS analysis if required with no additional cost. System Integrator will also provide all other components of the solution landscape and third-party tools as may be necessary for the successful implementation and functioning of the solution with respect to the required functionalities mentioned in the RFP including Functional Requirement Specifications.

The System Integrator must implement the above-mentioned ERP functional modules as per the identified business needs of BIADA.

System Integrator is responsible for the procurement of any software required for successfully implementing and managing the ERP System.
Existing data of Land Allotment etc should be migrated to ERP portal.

Based on the approved System Requirement Specifications, the System Integrator will undertake the system configuration and customization. BIADA intends to implement standard ERP functionality as far as practically possible. However, the same should meet the requirements of the FRS document as

well as the requirements gathered during the Requirement study. BIADA may agree to modify the requirements mentioned in FRS document in light of suggestions made by System Integrator. However, BIADA completely

reserves the right to agree or not to agree to any changes suggested by System Integrator. The implementation methodology and approach must be customized to meet the implementation timelines and Service Levels.

The functional requirements are mentioned in Appendix V of the RFP. These functionalities are indicative and based on the proposed business process which may undergo changes by the time of Award of Work Order to the System Integrator as well as during the execution of the project based on the detailed System Requirement study conducted by the System Integrator. All such identified changes shall also form part of the desired functionalities and shall be included in the scope of work without any additional financial implications during the implementation period. The System Integrator may, if so required, include the add- ons or modules to fulfill the requirements.

System Integrator has to carry out the integration of the ERP with other applications / solutions and new plug in modules or third party devices etc. to meet the project requirements. System Integrator would also have to comply with Non-Functional Requirements (NFR) provided in Appendix VI of the RFP.

System Integrator has to design and implement the requisite user authorization as well as other IT security controls, for the entire solution. Finally approved/accepted solution will be delivered as "System Configuration" document and the same should be implemented at locations that are identified within the scope of this project.

All forms, reports & MIS, as per users' requirements, shall be incorporated in ERP implementation. All required procedures, policies, delegation of powers pertaining to participating Corporations shall also be incorporated in business rules of proposed ERP by the System Integrator.

The System Integrator shall, if required commission a temporary development environment inclusive of hardware, network, software and other components of the solution landscape to initiate the development work even before the procurement of actual hardware set up.

It is expected that the development shall happen offshore and the bidder shall provide the offshore development environment and network connectivity for the same. However, BIADA would provide only seating space and power connectivity for the team deputed by the System Integrator at its office in Patna for the period of development and maintenance of the system.

Technology Requirement

Application will be developed in hybrid mode where globally accepted and reputed ERP System shall be deployed for Finance and accounting module, Human Resource module and Project Management Module which will be customized as per the requirements of the BIADA, and other remaining modules/requirements will be designed and developed as per the best practices/latest technology in the IT industry.

The mobile application must be developed as per the scope of work for use on Android and iOS based smart phones and tablets without distortion and any scalability issues. Bidders may propose the complete technology stack which is state of-the art in their technical proposal document. It is imperative to keep in mind the volume of data/database entries, concurrent/peak load on the system for arriving at the most suitable technology stack for undertaking this development. The choice of

technology should be clearly stated in the bidder's technical proposal.

8.2.4 Application Testing

The System Integrator shall design the Testing strategy including Traceability Matrix, Test Cases and conduct testing of various components of the ERP configured/ customized for BIADA. The ERP testing shall at least include Unit Testing, System Integration Testing, Performance Testing, User Acceptance Testing (UAT), etc.

The System Integrator shall obtain the sign-off from BIADA on testing approach and plan (inclusive of Test cases). The System Integrator shall perform the testing of the solution based on the approved test plan, document the results and shall fix the bugs found during the testing. Though BIADA is required to provide formal approval for the test plan, it is the ultimate responsibility of the System Integrator to ensure that the end product delivered meets all the requirements of the ERP implementation specified by BIADA in this bidding document.

At least the following activities will be carried out by the System Integrator as part of the Application Software testing:

- The System Integrator shall prepare the solution testing procedure for conducting test on various modules of the ERP solution including the test-cases. The software testing shall include Unit Testing, System Integration Testing, User Acceptance testing, Performance Testing (Full Load/ Stress Test), Integrity Testing, Security & Access Control Testing etc.
- The System Integrator shall obtain the sign-off from BIADA on the testing approach and plan.
- The System Integrator shall demonstrate to BIADA that the solution meets all the functional & technical requirements as per the RFP including FRS as well as the requirements finalized during the requirement gathering activity done by System Integrator.
- The System Integrator shall test the integration of the cross-function modules as well as the external applications based on the approved testing procedure.
- On successful completion of the Integration test, the System Integrator shall conduct the Full load/ Stress test using suitable tools in accordance with the approved test plan. These tools must be provided by System Integrator.
- The System Integrator shall provide and ensure all the necessary support for the conduct of the User Acceptance test by the identified employees of BIADA who are responsible for day-to-day operations of the functions automated through the ERP solution. The System Integrator shall share the test cases and demonstrate the testing procedure to the identified employees.
- The System Integrator shall fix the bugs/errors found during the testing, document the results of the testing and submit a report to BIADA.
- The System Integrator shall obtain the sign-off from BIADA on the successful testing report to consider the UAT completed.

8.2.5 Quality Review and Security Audit

BIADA shall form a team for conducting the Quality Review of the implementation of the proposed solution.

This team will consist of
- a)   Nominated employees of BIADA
- b)   Project management consultant
- c)   Representative of ERP OEM, if any (To be arranged by the System Integrator)
- d)   Quality control supervisor of System Integrator

The core responsibility of the quality review team will be as follows:
- a)   Review the project plan
- b)   Review the Business Blue printing/ SRS document
- c)   Review the test plan
- d)   Review the test results

e) Review the Go-Live readiness

The Security audit of the entire application shall also get conducted through STQC to ensure that it meets all the guidelines of GoB and CVC. The detailed scope of audit will be finalized at the time of finalization of preparation of test cases. Post that, a yearly security audit shall be arranged to be carried out by the System Integrator through a Cert-In empaneled vendor. It will be the responsibility of the SI to ensure that all the vulnerabilities and issues reported in the audit are promptly resolved and the resolution document is submitted to BIADA and Security agency to show the compliance.

8.2.6 Data Digitization and Migration

The System Integrator shall perform the data digitization and migration from manual and/or the existing legacy systems (wherever required) to the Database implemented for proposed ERP. The Data Digitization and Migration to be performed by the System Integrator shall be preceded by an appropriate Data Digitization and Migration strategy & methodology, prepared by System Integrator and approved by BIADA. Though BIADA is required to provide formal approval for the Data Digitization/ Migration Strategy, it is the ultimate responsibility of System Integrator to ensure that all the data sets which are required for operationalization of the agreed user requirements are digitized or migrated. Any corrections identified by BIADA or any external agency, during Data Quality Assessment and Review, in the data digitized by System Integrator, shall be addressed by System Integrator at no additional cost to BIADA. Data that needs to be digitized and migrated is in electronic format. Also, language, font and data size that needs to be digitize and migrate will be finalized at the time of requirement gathering with successful bidder. Technology used in the existing solution- Java, Oracle DB, My SQL.

At least the following activities will be carried out as part of the Data Migration:
* Define all the specifications that are needed to populate the data into the new ERP system
* Prepare uniform codification of all data sets
* Develop the data migration templates/ Forms/ Format and facilitate the migration of legacy and new data elements into the ERP system.
* Identification, configuration or development of the data upload/ download programs for the data migration
* Create data extraction programs in the legacy system to convert into the format as required by the ERP system.

8.2.7 Linkage with existing applications:
The system integrator shall provide for:
* Integration of the Finance & Accounts Module in the proposed ERP solution with the proposed CFMS, Department of Finance, Govt. of Bihar, erpoc2.0, land allotment portal.

8.2.8 Project and Product Documentation

The System Integrator will provide detailed final system documentation for reference to BIADA. System Integrator shall prepare the final User Manuals incorporating details of all menus and functionality provided by the System. BIADA expects the following (not limited to) in the form of product documents. In addition, the System Integrator will provide ongoing product information for reference purposes and to facilitate self- education for BIADA and other Personnel. Key documents required are:-
* Business Blueprint and Revised process documents consisting of granular details of each functional activity and any changes (if any) after the ERP implementation

- Detailed Design document detailing technical architecture (application, network, and security)
- Database infrastructure architecture, including clustering/ mirroring, backup & recovery strategies, defining data structure, data dictionary as per standards laid-down by Government of India.
- Data Architecture, interface architecture and integration architecture. Appropriate load balancing and clustering techniques should be adopted by the Selected SI in the Solution design for meeting the requirements of the RFP
- Configuration Documentation: consisting of system setting and parameters for each function modules.
- User Manual including system instruction and use cases, running of a program to perform specific task in the system with sample reports, screen formats, details of menus & instructions on how to perform specific tasks in the system using screenshots etc.
- Any other documentation required for usage and maintenance of implemented solution at each location like Technical Manual, Installation Guides etc.
- System operational procedure manuals.
- The System Integrator shall provide minimum three hard copies and one soft copy of the above-mentioned manuals.
- The System Integrator shall submit the system documents including the Functional Specifications & Technical Specification.
- The System Integrator shall prepare & submit the System Administration manual indicating the system settings for each module
- System Integrator must ensure the provision of Toolkit/ Troubleshoot guides and Learning Management system for every component of the Application/ System software as well as IT infrastructure.

8.3 Training and Capacity Building

The System Integrator shall conduct Training Needs Analysis of all the concerned staff and draw up a systematic training plan in line with the overall project plan. The trainings shall be provided at BIADA premises or any other premises, as fixed by BIADA.

Capacity Building is a highly critical component of this project. The objective of BIADA Capacity Building (CB) initiatives is to equip the direct users and other stakeholders of BIADA with the right skills, and knowledge to optimally use the ERP solution being implemented.

Every user group would have a separate Pre and Post Implementation Training. The Training program would be split into series of sessions for different user groups and across functional areas of the ERP.

The implementation agency shall be responsible for the following activities as part of the End User and Train the Trainer Training:

a) Develop overall training plan including formation of user groups and classifications
b) Develop Location-Wise Training Schedule, Curriculum, and Training Material for BIADA and other Department's nodal officers
c) Deliver training to end users including carrying out the training effectiveness evaluation
d) Develop and maintain and update an online self-learning module for all modules

Number of trainees of various types are listed below:

Training	Delivery mode	Participants	Provider	Approx. number of trainings	Total people to be trained
Train the Trainer	Classroom training + Handholding	Master Trainers from BIADA	Implementation Agency	2 – 3	5– 10
Training for BIADA Officials	Classroom training + Handholding + Self learning modules	All concerned BIADA Officials	Implementation Agency	2 – 3	20 – 25
Change Management /Awareness Training	Classroom training	Master Trainers from BIADA + All BIADA Officials	Implementation Agency	2 – 3	

8.3.1   Imparting regular refresher trainings

The System Integrator shall also be responsible for retraining the above staff whenever changes are made in the application and/or personnel. It is the responsibility of the System Integrator to ensure that the staff from BIADA involved in the operations is familiar with new versions (if any) of the ERP system.

8.4 User Support and Maintenance of the Integrated IT application for 5 years

8.4.1   Application monitoring and Compliance to Service Level Agreements

It is the responsibility of the System Integrator to:
- Monitor BIADA's ERP application on a day-to-day basis to ensure that it functions reliably.
- Monitor application to ensure that the application does not suspend, hang etc.
- Monitor components, including but not limited to, Application servers, Web Servers, Middleware and other Servers on an ongoing basis to ensure smooth functioning of the applications.
- The System Integrator shall ensure compliance to uptime and performance requirements of ERP solution as indicated in the SLA (Appendix IV of the RFP) and any major changes to the software shall be planned accordingly by the System Integrator for ensuring the SLA requirements.
- Ensure the accuracy and timeliness of data uploaded as received.
- Resolve and report the data discrepancies to the designated BIADA persons.
- The System Integrator shall submit a document on the performance of the ERP application against the desired SLA on a Quarterly basis.

8.4.2   Application support including modifications and integration with future systems

The scope of System Integrator covers the following activities:
- Enhancement / modifications with respect to new / enhanced / enriched functionality
- Ensure the desired functioning of the Interface / integration
- Test scripts preparation and interim application testing
- Application installation and testing whenever required
- Modification / development of reports

- Provide technical support on system parameters and requirement for BIADA's Enterprise Applications Software
- Manage the database administration according to the agreed standards.
- Present relevant information and training if applicable and necessary regarding the use and functions of new products and services to a defined number of relevant Users designated by BIADA.
- Provide handholding support to end users in carrying out the business process transactions.

8.4.3 Bugs / Fixes Management

Bugs or Fixes Management is an important activity and based on the severity level, it becomes highly critical. As the parties involved are Users / functional team members of BIADA, Application providers and System Integrator, SLAs may not be directly defined. System Integrator commits involvement in resolution on 'best of efforts' basis as per requirements. The following are the steps involved:
- Problem definition
- Context definition (through functional teams as per requirements)
- Request Analysis by System Integrator
- Priority Categorization
- Logging with OEM and tracking to resolution

The System Integrator shall address all the errors/bugs/gaps in the functionality offered by the ERP solution (vis-à-vis the FRS) at no additional cost during the operations & maintenance period (i.e. 5 years from the date of final GO-Live). The System Integrator shall identify and resolve application problems like system malfunctions, performance problems, data corruption etc. due to which the ERP solution is not able to give the desired performance
The System Integrator shall be responsible for the following:
- Updating all available patch/ updates to the ERP solution.
- Providing handholding support to end users
- Ensuring proactive and timely support in identification and provision of solutions including OEM Support for resolution.
- Timely logging of Bugs/Problems
- Daily / Weekly / Monthly Status Reports to BIADA & other Project Stakeholders

8.4.4 Software Change and Version Control

- The System Integrator shall define the Software Capacity Building & Version control process and obtain approval for the same from BIADA
- The System Integrator shall maintain version control and configuration information for any system documentation and application software.
- Any changes/customizations to the ERP application performed/ identified within the period of six months post "Final Go-Live" are not to be considered as separate Change Requests and hence are to be carried out by the System Integrator at no extra cost. However, total man months for such changes/customizations shall not exceed 6 (six). In case the total effort crosses 6 man-months, further changes/customizations shall be handled through change control process.
- All configuration changes or minor customizations to the ERP application (even if identified after the stabilization period of six months post "Go-Live") which require less than 5-man days of development effort are not to be considered as separate Change Requests and hence are to be carried out by the System Integrator at no extra cost throughout the period of contract.
- Only those major functional customization changes (requiring more than 5 man days of development effort) in the solution which have neither been mentioned in the approved SRS, nor included in the To- be functional solution and have not been proposed within six (6) months from "Go Live", shall be carried out through a separate Change Control Note/Notice (CCN) prepared by the System Integrator (format has been provided as Form 2 Appendix III).
- However, any such requirement mentioned in the approved SRS or included in the To-be

functional solution will be done at no extra cost.

- Changes in the application software which are mandatorily required for complying to any of the predefined SLA requirements, FRS or To-be Functional solution cannot be treated as a separate Change Request, and hence are to be completed by the System Integrator at no extra cost
- All Change Requests submitted by the System Integrator will contain an effort estimate, which would be discussed with and approved by BIADA. BIADA may ask the System Integrator to provide justification using standard methodology like Function Point Analysis or any similar method.
- All changes during the stabilization or support & maintenance phase shall be subjected to the comprehensive & integrated testing by the System Integrator to ensure that the changes implemented in the system meet the desired and specified requirements of BIADA and doesn't impact any other function of the system.

- The System Integrator shall submit a Quarterly Report on the changes performed on the application and resolution of malfunctions carried out by the System Integrator
- Troubleshoot all possible problems, monitor erratic behavior through the Application Logs.
- All planned changes to application systems shall be coordinated within established Change Control processes to ensure that:
  - o Appropriate communication on the changes required has taken place
  - o Proper approvals have been received
  - o Schedules have been adjusted to minimize impact on the production environment

- For any changes to the software, System Integrator shall submit a document indicating proposed changes, impact to the system in terms of functional outcomes/additional features added to the system etc.

- The System Integrator is required to obtain approval from BIADA for all the proposed changes before implementation of the same into production environment and such documentation is subject to review at the end of each quarter of operations & maintenance support.

- The System Integrator is required to keep all such documentation up to date to reflect the latest enhancements/modifications made to the application. All documentation should be prepared as per latest industry standards and should incorporate necessary version control mechanism.

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8.4.5 Maintenance of Configuration Information & System documentation

The System Integrator will provide detailed final system documentation for reference to BIADA. System Integrator shall prepare the final User Manuals incorporating details of all menus and functionality provided by the System.

8.4.6 Helpdesk Support

The BIADA will provide a sitting space for the helpdesk support center. The SI will depute its support staff at the client location with all the necessary hardware and software. The support staff will be contactable via phone and mail to provide assistance to the users and address their queries and concerns. This assistance will be provided during the Service Hours as per the location classification and responsibility matrix, which will be covered in the Operation's Manual to be provided by System Integrator and duly approved by BIADA. During all other hours, users can leave their message via email. The requests received on email will be taken during the next working day.

A proper escalation procedure, as mentioned in the duly approved Operational Manual, will be followed if the problem cannot be resolved. Shared resources of operational and technical support group will provide this service at all locations. The helpdesk service will serve as a single point of

contact for all incidents and service requests. The service will provide a Single Point of Contact (SPOC) and also escalation / closure of incidents for the user departments. The activities shall include

a.   Provide helpdesk facility during agreed service period window for reporting user department incidents / issues / problems related to the application/solution.
b.   Provide necessary channels (email and phone number) for reporting issues to the helpdesk.
c.   Toll free number, SMS and email will be provided by the BIADA
d.   Implement a call logging system in line with the severity levels as per the SLAs. The helpdesk shall log user and assign an incident/ call ID number. Severity shall be assigned to each call as per the SLAs.
e.   Creation of knowledge base on frequently asked questions to assist users in resolving basic issues themselves
f.   Track each incident / call to resolution
g.   Provide feedback to callers
h.   Analyze the call statistics
i.   Creation of knowledge base on frequently asked questions to aid users
j.   Escalate the calls, to the appropriate levels, if necessary, as per the escalation matrix agreed between the System Integrator and the user department. The escalation matrix shall be developed by the System Integrator in discussion with BIADA.
k.   Analyze the incident / call statistics and provide monthly reports including but not limited to:
   • Type of incidents / calls logged
   • Incidents / calls resolved
   • Incidents / calls open
   • Root Cause analysis for frequently occurring incidents

l.   Initiate a "Problem Management Record" or "PMR" to document service.
m. Provide monthly reports to BIADA on calls handled by the helpdesk

8.5 Annual Technical Service

• System Integrator shall maintain data regarding entitlement for software enhancements, refreshes, replacements and maintenance.
• If the Operating System or additional copies of Operating System are required to be installed / reinstalled / de-installed, the same should be done as part of ATS.
• System Integrator should carry out any requisite adjustments / changes in the configuration for implementing different versions of Application Software.
• Updates: The System Integrator shall provide and implement from time to time the Updates of the software and operating systems as required. The System Integrator should provide updates & patches of the IT software and tools to BIADA as and when released by OEM without any cost to BIADA. All the software shall have the latest updates at the end of Contract period.
• System Integrator shall provide patches to the licensed software including the IT software, operating system, databases and other applications.

• Software License Management: The System Integrator shall provide for software license management and control. System Integrator shall provide complete manufacturer's technical support for all the licensed software problems and/or questions, technical guidance, defect and non-defect related issues. System Integrator shall provide a single-point-of-contact for software support and provide licensed software support including but not limited to problem tracking, problem source identification, problem impact (severity) determination, bypass and recovery support, problem resolution, and management reporting.
• The manufacturer's technical support shall at a minimum include online technical support and telephone support during BIADA's business hours (Business hours in BIADA will be from 10:00 hours to 1700 hours on weekdays (Mon-Sat)) with access for BIADA and System Integrator to the manufacturer's technical support staff to provide a maximum of 4 hour response turnaround time. There should not be any limits on the number of incidents reported to the manufacturer.

BIADA shall have access to the online support and tools provided by the manufacturer. BIADA shall also have 24x7 accesses to a variety of technical resources including the manufacturer's knowledge base with complete collections of technical articles.

- System Integrator shall have to undertake Operational Support Services of the entire IT system during the complete Implementation phase till the commissioning free of cost and 5 years post that. The Service requirement and its associated SLA during the Operation phase are mentioned in separate section (Appendix IV of the RFP) in this bidding document.

8.6 Data Centre hosting

The Data Centre (DC) to be used for this project will be provided by the State Government. The Department of Information Technology, Government of Bihar, has a state-of-the-art DataCenter (BSDC 2.0) at BELTRON Bhawan, Patna to fulfill the complete Data Center related requirements for the State Government Departments. The BSDC 2.0 is a Tier III compliant and ISO:27001 certified Data Center which is equipped with robust security features. It is compliant with industry standards and guidelines of the Government of India. IT infra for the hosting will be provided by the BIADA.

The SI has to share the application hosting requirements with the SDC and get the infrastructure ready well in advance. Subsequently, the SI shall

a. Configure, Install and maintain licensed software required for proper hosting of web portal with latest anti-virus with all critical updates to be installed in the server.

b. Shall regularly patch/update the web application. Major patching / update which requires system downtime must be informed well in advance and should be undertaken only after BELTRON confirmation.

c. Shall ensure optimum CPU, SAN, and server utilization. Should a breach in their utilization occur, the environment needs to be optimized and / or upgraded. For such purpose, SI shall inform BIADA who may take a decision on procurement of additional capacity / upgrade the same at SDC.

d. System Integrator should have a governance structure in place to report to BIADA's team on daily, weekly and monthly basis and the solution should allow downloading of standard and custom reports on the monitoring status in various formats like PDF, Excel etc.

e. Vulnerability testing on a half yearly basis. Reporting of the same on a half yearly basis.

f. All Security Requirements like HTML/ SQL Injections, application of Stored Procedures etc. should be taken care of.

g. The System Integrator must provide a detailed hardware sizing plan for the application to be hosted in the State Data Centre. This plan should include specifications for all required hardware components, such as servers, storage, and network equipment. It must ensure the application runs efficiently now and, in the future, considering current and expected usage. The plan should also ensure compatibility with the State Data Centre's existing infrastructure and follow industry standards.

8.7 Number of users

As described above the ERP system will be accessed through various access channels, such as –

1. The BIADA Operational staff would access the system through secured LAN and also over Internet Connectivity.

2. The BIADA Top management would access the system through secured LAN and over the mobile devices (mainly the project Dashboard)

3. The Nodal Officers from various other Departments and Government bodies would access the system either through the BSWAN or over Internet Connectivity through a separate Online Portal.

4. Any other person properly authenticated and authorized by the system would access the system over Internet Connectivity through a separate Online Portal.

As studied and reported –The estimated user details are as under:
a) Total number of portal users: 350
b) Total number of ERP users
*   Project management: 50
*   Land Allotment-50
*   Accounts and Finance: 20
*   Vendor/Supplier Management: 20
*   Legal-20
*   Investment Promotion-20
*   Human Resource: 20
*   Top Management: 10
*   Miscellaneous: 10

8.8 Deliverables, Timelines and Payment Milestones

#	Activity/Task	Deliverables/ Milestone	Timelines (In weeks)	Payment Milestone
1	• Project Award & Contract signing between BIADA and successful Systems Integrator		Project Start Date= T	-
2	• Project Planning • Resourcing schedule • Development Implementation and Maintenance approach	a) Finalized Project plan b) Finalized Inception Report	**T + 2**	-
3	• Study of existing processes and suggestion on To-Be processes based on best practices • Finalizing custom requirements • Requirement gathering and approval of SRS	a) Finalized Requirement report b) Approved System requirement specification	**T + 7**	30% of Application Development and Deployment cost
4	• System design – Detailed Test Plan • Quality Audit plan	Approved Test plan	**T + 9**	10% of Application Development and Deployment cost
5	• System Development – Application development	Code	**T + 23**	20% of Application Development and Deployment cost
6	• System Testing and bug fixing/UAT	Successful UAT report	**T + 26**	10% of Application Development and Deployment cost
7	Security Audit of the application	Sign off Certificate/ Completion Certificate	**T + 30**	10% of Application Development and Deployment cost.

8	Application deployment on SDC & Go-Live	Sign off Certificate	**T+ 32**	10% of Application Development and Deployment cost.
9	Completion of training and Submission of Documentation	-Training completion certificate from the client -Project documents mentioned	**T + 34**	10% of Application Development and Deployment cost.
10	Post Go-live Support (AMC period) -Maintenance support -Helpdesk support	SLA adherence report on a monthly basis	60 months after acceptance of Go Live	12 equal Quarterly Payments of Maintenance cost (after deduction of SLA Penalties, if any)

9. Compliance with e-Gov standards

9.1 Scalability:

One of the fundamental requirements of the proposed application is its scalability. The architecture should be proven to be scalable (cater to increasing load of internal and external users and their transactions) and capable of delivering high performance. In this context, it is required that the application and deployment architecture should provide for Scale-Up and Scale out on the Application and Web Servers, Database Servers, and all other solution components. For pilot states, the scalability is very important, and this aspect should be thoroughly tested before statewide roll out.

9.2 Security:

The systems implemented for project should be highly secure, considering that it is intended to handle sensitive data relating to the citizens of the state. The overarching security considerations are described below.

i. The security services used to protect the solution shall include Identification, Authentication, Access Control, Administration and Audit and support for industry standard protocols.
ii. The solution shall support advanced user authentication mechanisms including digital certificates and biometric authentication.
iii. Security design should provide for a well-designed identity management system, security of physical and digital assets, data and network security, backup and recovery and disaster recovery system.
iv. The overarching requirement is the need to comply with ISO 27001 standards of security.
v. The application design and development should comply with Open Web Application Security Project (OWASP) top 10 principles.

A list of information security requirements is specified below.

#	Security Areas	Specifications
1.	Network Security	a. Appropriate firewalls, IPS, SSL devices etc.should be used to ensure Network security
		b. The solution should support SSL encryption mechanism for transferring data acrossnetwork and between client and server

2.	System Security	c. Adequate access control procedures should be defined to secure the entire IT system logically.
		d. The access controls procedures should cover all stages in the life cycle of useraccess, from the initial registration of new users to the final deregistration of users who no longer require access to information systems and services.
		e. The system should have 2 factor authentication mechanism either through One Time Password (OTP) or soft tokens-based technologies for access control and user authentication.
3.	Application Security	f. The solution should have appropriate authentication mechanisms
		g. Application user authentication & authorization related transactions should be encrypted.
		h. Operating system should be hardened on which the application is installed.
		i. A web application firewall shall be deployed to secure the web-layer.
		j. The web applications should be free from OWASP / SANS and CERT-IN web application vulnerabilities as released from time to time.
4.	Audit Trails & Logs	k. Event logging should create an accuraterecord of user activity such as which users accessed which system, and for how long.
		l. The solution should log all types of events especially those related to security
5.	Data Protection	m. The solution should support SSL encryption mechanism for transferring data across network. Provision should be made to ensure that data in any form should not be copied on to any external media without authorization.
		n. The data transferred across network should be encrypted using Public Key (PKI) Infrastructure.
		o. Complete end point data protection should be provided at client site such that any type of data pilferage using unauthorizedcopying, storing and emailing could be prohibited.

		p. Access to all system resources including data files, devices, processes, and audit files should be provided to the intended users only.
		q. Mobile application should be designed and developed in a way that it ensures security of the application and data on the device.
		r. Ensure to protect documents by assigning security parameters and criteria in order to provide more effective protection for an electronic document in order to maintain Confidentiality, Authorization, Accountability, Integrity, Authenticity and Non-repudiation.
6.	Session Management	s. The system should limit to only one session per user or process ID.
		t. The system should put a limit on the maximum time length of an idle session, which should ensure that automatic session termination takes place after expiry of the specific time length.
7.	Data Warehouse Security	u. Users must not have access to the data warehouse prompt of the application. Access to the data warehouse prompt must be restricted only to the database administrator.
		v. "Super user" rights for the data warehouse must only be given to the administrator and the activities of these accounts must be properly logged.
8.	Application Deployment	w. All unused ports should be blocked at server machines.
		x. The application server should be segregated from internet zone through firewall or other filtering mechanism.
9.	Information Security Governance	y. The employees working on the project should be made aware of his or her responsibilities with respect to Information Privacy and Information Security.
		z. Employees working on the project shall undergo security awareness training during induction.

9.3 Application Architecture

a. It has been proposed that the applications designed and developed for the departments concerned must follow some best practice and industry standards. In order to achieve the high level of stability and robustness of the application, the system development life cyclemust be carried out using the industry standard best practices and adopting the security constraints for access and control rights. The various modules / application should have a common Exception Manager to handle any kind of exception arising due to internal/ external factors.

b. Similarly, the modules of the application are to be supported by the Session and Transaction Manager for the completeness of the request and response of the client request. The system should have a module exclusively to record the activities/ create thelog of activities happening within the system / application to avoid any kind of irregularitieswithin the system by any User / Application.

9.4 Proposed Application Architecture

An indicative 3-tier architecture (also referred to as multi-tier or N-tier architecture) has been proposed for the Application Solution.

The entire processing should take place in n-tier architecture:
   a. Front-end software (client tier) - responsible for the presentation of information andprovides user interface.

   b. Application Layer – The Business logic for all the application as per the FRS document

   c. Database Layer - responsible for the manipulation and storage of data.

9.5 High Level Design (HLD)

Once the SRS are approved, the SI shall complete the High-Level Designing and all HLD documents of all the functionalities, integration with existing application and external application.

9.6 Detailed (Low Level) Design (LLD)

The LLD shall interpret the approved HLD to help application development and shall include detailed service descriptions and specifications, application logic (including "pseudo code") and UI design (screen design and navigation). The preparation of test cases will also be completed during this stage. The SI shall have the design documents reviewed and approvedby the Purchaser.

9.7 Test Plan

Once the SRS is approved and design is started, the SI shall prepare all necessary Test Plans(including test cases), i.e., plans for Acceptance Testing. Test cases for Initial and Final UserAcceptance Testing shall be developed in collaboration with domain experts identified at the state Purchaser. Initial and Final User Acceptance Testing shall involve Test Case development, Unit Testing, Integration and System Testing, Functional testing of Application,Performance testing of the Application including measurement of all Service Levels asmentioned in this RFP and finally SI shall also carry out Load/ Stress testing. The SI will

submitthe test plans and test result reports to the Purchaser for comprehensive verification and approval.

9.8 Adherence to Open-Source Technology

The solution must be designed following open-source technology standards, to the extent feasible and in line withoverall system requirements set out in this RFP, in order to provide for good inter-operability with multiple platforms and avoid any technology or technology provider lock-in.

9.9 Compliance with Government standards & policies

The solution must comply with all the relevant standards & policies of the Government related with e-Governance application development.

9.10 Compliance with Industry Standards:

In addition to above, the proposed solution has to be based on and compliant with industry standards (their latest versions as on date) wherever applicable. This will apply to all the aspects of solution including but not limited to design, development, security, installation, andtesting.

10. Appendix I: Forms

10.1 Form 1: Compliance Sheet for Technical Proposal

(The technical proposal should comprise of the following basic requirements. The documents mentioned in this compliance sheet along with this form, needs to be a part of technical proposal)

#	Specific Requirements	Documents Required	Compliance	Reference & Page Number
1.	Covering Letter for Technical Proposal	As per Form 4	Yes / No	
2.	Legal Entity	Certificates of incorporation	Yes / No	
3.	Turnover	Extracts from the audited balance sheet and profit & loss; OR Certificate from the statutory auditor	Yes / No	
4.	Experience in ERP systems development and Implementation engagement(s)	Completion certificates from the client; OR Work order + Self certificate of completion (Certified by the statutory auditor); OR Work order + phase completion certificate from the client AND Project citation (Form 5)	Yes / No	
5.	Certifications	Copy of CMMI Level 3 certificate (or above)	Yes / No	
6.	Experience in IT/Software Development & maintenance services	Completion certificates from the client; OR Work order + Self certificate of completion (Certified by the statutory auditor); OR Work order + phase completion certificate from the client AND Project citation (Form 5)	Yes / No	
7.	Solution Proposed and Demonstration of understanding of the Corporation's requirements	Form 6, 6A, 6B along with a note with details of solution proposed for the following components along with name of project where these components have been used earlier:		
8.	Project Plan and Resource deployment plan to perform the work in this assignment	Forms 7, 8 and 9 Detailed work plan preferably in Gantt chart format and Resource Deployment plan CVs of Key Professionals proposed	Yes / No	
9.	Experience with Govt of Bihar in last 5 years.	Completion certification from the client	Yes / No	

10	The agency should possess the essential infrastructure, facilities and technical expertise and should have on its payroll at least 100 employees.	The bidder must give an undertaking on its letter head that it has the necessary infrastructure and expertise to handle this project	Yes / No	
11	The firms having black-listed/debarred in participating in any procurement activities by any State or Central Government or any other govt. organization in India are not allowed to bid.	Undertaking to this effect shall be submitted by the bidder on his letter head that the agency has not been blacklisted/debarred from participating in tender/bids by any State or Central Govt. organization in India.	Yes / No	
12.	Deviations (if any)	Form 10	Yes / No	

10.2 Form 2: Particulars of the Bidder

#	Information Sought	Details to be Furnished
A	Name and address of the bidding Company	
B	Incorporation status of the firm (public limited / private limited, etc.)	
C	Year of Establishment	
D	Date of registration	
E	ROC Reference No.	
F	Details of company registration	
H	Name, Address, email, Phone nos. and Mobile Number of Contact Person	

10.3 Form 3: Bank Guarantee for Earnest Money Deposit

To,
<Name>
<Designation>
<Address>
<Phone Nos.>
<Fax Nos.>
<email id>

Whereas <<Name of the Bidder>> (hereinafter called 'the Bidder') has submitted the bid for Submission of RFP #
<<RFP Number>> dated <<Date>> for <<Name of the assignment>> (hereinafter called "the Bid") to BIADA Corporation (BIADA)
Know all Men by these presents that we <<   >> having our office at <<Address>> (hereinafter called "the Bank") are bound unto the BIADA Corporation (BIADA) (hereinafter called "the Purchaser") in the sum of INR <<Amount in figures>> (Rupees <<Amount in words>> only) for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this <<Date>>

The conditions of this obligation are:
1. If the Bidder having its bid withdrawn during the period of bid validity specified by the Bidder on the Bid Form; or
2. If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the period of validity of bid
    (a) Withdraws his participation from the bid during the period of validity of bid document; or
    (b) Fails or refuses to participate in the subsequent Tender process after having been short listed;

We undertake to pay to the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.
This guarantee will remain in force up to <<insert date>> and including <<extra time over and above mandated in the RFP>> from the last date of submission and any demand in respect thereof should reach the Bank not later than the above date.
NOTWITHSTANDING ANYTHING CONTAINED HEREIN:
   I. Our liability under this Bank Guarantee shall not exceed INR <<Amount in figures>> (Rupees <<Amount in words>> only)
  II. This Bank Guarantee shall be valid up to *<<insert date>>*)
 III. It is condition of our liability for payment of the guaranteed amount or any part thereof arising under this Bank Guarantee that we receive a valid written claim or demand for payment under this Bank Guarantee on or before *<<insert date>>*) failing which our liability under the guarantee will automatically cease.

 (Authorized Signatory of the Bank)

Seal:

Date:

10.4 Form 4: Letter of Proposal

To:

<Location, Date>

<Name>
<Designation>
<Address>
<Phone Nos.>
<Fax Nos.>
<email id>

Subject: Submission of the Technical bid for <Name of the Systems Implementation

assignment> Dear Sir/Madam,
We, the undersigned, offer to provide ERP Systems Implementation solutions to the Purchaser on <Name of the Systems Implementation engagement> with your Request for Proposal dated <insert date> and our Proposal. We are hereby submitting our Proposal, which includes this Technical bid and the Financial Bid sealed in a separate envelope.

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

We undertake, if our Proposal is accepted, to initiate the Implementation services related to the assignment not later than the date indicated in Fact Sheet.

We agree to abide by all the terms and conditions of the RFP document. We would hold the terms of our bid valid for <180> days as stipulated in the RFP document.

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

Yours sincerely,
Authorized Signature [*In full and initials*]:
Name and Title of Signatory:
Name of Firm:
Address:
Location: Date:

10.5 Form 5: Project Citation Format

Relevant IT project experience (provide no more than 5 projects in the last 5 years)	
General Information	
Name of the project	
Client for which the project was executed	
Name and contact details of the client	
Project Details	
Description of the project	
Scope of services	
Outcomes of the project	
Other Details	
Total cost of the project	
Total cost of the services provided by the respondent	
Duration of the project (no. of months, start date, completion date, current status)	
Other Relevant Information	
Letter from the client to indicate the successful completion of the projects	
Copy of Work Order	

10.6 Form 6: Proposed Solution

Technical approach, methodology and work plan are key components of the Technical Proposal. You are suggested to present Approach and Methodology divided into the following sections:
  a) Solution Proposed
  b) Understanding of the project (how the solution proposed is relevant to the understanding)
  c) Technical Approach and Methodology

Form 6 A: Solution Proposed

#	Proposed Solution (Provide the Product Name or fill Custom Built, in case of a new development)	Version & Year of Release	OEM	Features & Function alities	O&M Support (Warranty/AT S/ : as required as per RFP)	Reference in the Submitted Proposal (Please provide page number/section number/ volume)

Form 6 B: Bill of Material (Software)

#	Item	Proposed Solution (Provide the Product Name or fill Custom Built, in case of a new development)	Unit of Measur ement	Number of Licenses (Developmen t Environment)	Numbe r of License s (UAT)	Number of Licenses (Training)	Number of Licenses (Data Centre Production)

10.7 Form 7: Proposed Work Plan

No	Activity[1]	Calendar Months[2]												
		1	2	3	4	5	6	7	8	9	10	11	12	n
1														
2														
3														
4														
5														
N														

1   Indicate all main activities of the assignment, including delivery of reports (e.g.: inception, interim, and final reports), and other benchmarks such as Purchaser approvals. For phased assignments indicate activities, delivery of reports, and benchmarks separately for each phase.

2   Duration of activities shall be indicated in the form of a bar/ Gantt chart.

10.8 Form 8: Team Composition

Name of Staff with qualification and experience	Area of Expertis e	Position Assigned	Task Assigne d	Time committed for the engagement
Implementation / Development Phase				
Operations / Post Implementation Support Phase				

10.9 Form 9: Deployment of Personnel

No	Name of Staff[1]	Staff input in Months (in the form of a bar chart)[2]													Total staff man-months proposed
		1	2	3	4	5	6	7	8	9	10	11	12	n	Total
											Total				

1. For Professional Staff the input should be indicated individually; for Support Staff it should be indicated by category
2. Months are counted from the start of the assignment.

▬▬▬ Full time input   ⬚⬚⬚ Part time input

10.10   Form 10: Deviations

To:

<div align="right"><Location, Date></div>

<Name>
<Designation
>
<Address>
<Phone Nos.>
<Fax Nos.>
<Email id>

Dear Sir:

Subject: Deviations <Provide Name of the Implementation Assignment>

We declare that all the services shall be performed strictly in accordance with the Tender documents except for the variations and deviations, all of which have been detailed out exhaustively in the following statement, irrespective of whatever has been stated to the contrary anywhere else in our bid.

Further we agree that additional conditions, if any, found in the Tender documents, other than those stated in deviation schedule, shall not be given effect to.

A - On the Terms of Reference

[*Suggest and justify here any modifications or improvement to the Scope of Work you are proposing to improve performance in carrying out the assignment (such as deleting some activity you consider unnecessary, or adding another, or proposing a different phasing of the activities). Such suggestions should be concise and to the point, and incorporated in your Proposal.*]

No.	Deviation	Material	Non-Material	Impacted Deliverable(s)	Impacted Timeline(s)	Financial Impact
1.	<Deviation description>	<Yes / No>	<Yes / No>	<Name(s) of Deliverables to get affected by the Deviation>	<Effect on Timelines due to the Deviation>	<Value>
2.	<Deviation description>	<Yes / No>	<Yes / No>	<Name(s) of Deliverables to get affected by the Deviation>	<Effect on Timelines due to the Deviation>	<Value>
3.	<Deviation description>	<Yes / No>	<Yes / No>	<Name(s) of Deliverables to get affected by the Deviation>	<Effect on Timelines due to the Deviation>	<Value>

B – Any other areas

No.	Deviation	Material	Non-Material	Impacted Deliverable(s)	Impacted Timeline(s)	Financial Impact
1.	<Deviation description>	<Yes / No>	<Yes / No>	<Name(s) of Deliverables to get affected by the Deviation>	<Effect on Timelines due to the Deviation>	<Value>
2.	<Deviation description>	<Yes / No>	<Yes / No>	<Name(s) of Deliverables to get affected by the Deviation>	<Effect on Timelines due to the Deviation>	<Value>
3.	<Deviation description>	<Yes / No>	<Yes / No>	<Name(s) of Deliverables to get affected by the Deviation>	<Effect on Timelines due to the Deviation>	<Value>

Yours sincerely,
Authorized
Signature:
Name and Title of Signatory:
Name of Firm:
Address:

10.11 Form 11: Illustrative Manufacturers'/Producers' Authorization Form
[This form has to be provided by the OEMs of the products proposed]

No. Date:
To:

OEM Authorization Letter

Dear Sir:
Ref: Your RFP Ref: [*] dated [*]

We who are established and reputable manufacturers / producers of   having
factories / development facilities at (*address of factory / facility)* do hereby authorize M/s
(Name and address of Agent) to submit a Bid, and sign the contract with you against the above Bid Invitation.
We hereby extend our full guarantee and warranty for the Solution, Products and services offered by the
above firm against this Bid Invitation.
We also undertake to provide any or all of the following materials, notifications, and information pertaining
to the Products manufactured or distributed by the Supplier:
   a. Such Products as the Purchaser may opt to purchase from the Supplier, provided, that this option
      shall not relieve the Supplier of any warranty obligations under the Contract; and
   b. in the event of termination of production of such Products:
      i.   advance notification to the Purchaser of the pending termination, in sufficient time to
           permit the Bank to procure needed requirements; and
      ii. Following such termination, furnishing at no cost to the Purchaser, the blueprints, design
           documents, operations manuals, standards, source codes and specifications of the Products,
           if requested.

We duly authorize the said firm to act on our behalf in fulfilling all installations, Technical
support and maintenance obligations required by the contract.

Yours faithfully,

(Name)
(Name of Producers)
Note: This letter of authority should be on the letterhead of the manufacturer and should be signed by a person
competent and having the power of attorney to bind the manufacturer. The Bidder in its Bid should include it.

11. Appendix II: Financial Proposal Template

11.1 Form 1: Covering Letter

To:

<Location, Date>

<Name>
<Designation>
<Address>
<Phone Nos.>
<Fax Nos.>
<email id>

Subject: Submission of the Financial bid for <Provide Name of the Implementation Assignment>

Dear Sir/Madam,

We, the undersigned, offer to provide the ERP Implementation services for *<<Title of Implementation Services>>* in accordance with your Request for Proposal dated *<<Date>>* and our Proposal (Technical and Financial Proposals). Financial Proposal is inclusive of the local taxes.

1. PRICE AND VALIDITY
   - All the prices mentioned in our Tender are in accordance with the terms as specified in the RFP documents. All the prices and other terms and conditions of this Bid are valid for a period of 180 calendar days from the date of opening of the Bid.
   - We hereby confirm that our prices include all taxes except GST.
   - We understand that the actual payment would be made as per the existing indirect tax rates during the time of payment.

2. UNIT RATES
We have indicated in the relevant forms enclosed, the unit rates for the purpose of on account of payment as well as for price adjustment in case of any increase to / decrease from the scope of work under the contract.

3. TENDER PRICING
We further confirm that the prices stated in our bid are in accordance with your Instruction to Bidders included in Tender documents.

4. QUALIFYING DATA
We confirm having submitted the information as required by you in your Instruction to Bidders. In case you require any other further information/documentary proof in this regard before evaluation of our Tender, we agree to furnish the same in time to your satisfaction.

5. BID PRICE
We declare that our Bid Price is for the entire scope of the work as specified in the <Refer Section No.>. These prices are indicated in Commercial Bid attached with our Tender as part of the Tender.

6. ERFORMANCE BANK GUARANTEE

We hereby declare that in case the contract is awarded .to us, we shall submit the Performance Bank Guarantee as specified in the <Appendix III> of this RFP document.

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal, i.e., [*Date*].

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

We hereby declare that our Tender is made in good faith, without collusion or fraud and the information contained in the Tender is true and correct to the best of our knowledge and belief.

We understand that our Tender is binding on us and that you are not bound to accept the Tender you receive. Thanking you,
Yours sincerely,

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

11.2 Form 2: Financial Proposal

Form F2A: Summary Price Proposal

Grand Summary Cost Table

#	Particulars	Total Cost (Including all taxes)
Application Development and Deployment Cost		
1	Design & Development of ERP Application [A]	
2	Training & Handholding [B]	
	Sub Total [X] = [A+B]	
Operations and Maintenance Cost		
3	Software Licenses [C]	
4	Onsite and offshore Operations & Maintenance including change management for 5Years [D]	
5	Helpdesk Support for 5Years [E]	
	Sub Total [Y] = [C+D+E]	
	Grand Total [X+Y]	

(A) Design & Development of ERP Application

#	Description	No. of Units (x)	Unit Cost (y)	Total Cost (x*y)
1	**Design, Development of ERP System for the following modules for 5 Years**			
1.a	Financial and Accounting Module (Minimum 25 concurrent users.)	25		
1.b	Human Resource module (Minimum 25 concurrent users.)	25		
1.c	Project Management Module (Minimum 50 concurrent users.)	50		
1.d	Investment promotion Module	01		
1.e	Court case monitoring Module	01		
2	**Design and development for custom application**			
2.a	Development of existing portals (As per Land Allotment and other policy)	01		
2.b	Self Service Portal	01		
3	**Reporting, Dashboard and Analytics** (Minimum 05 concurrent users.)	05		
4	**Design and Development of Mobile Application**	01		
5	**Integration with CFMS/Banks, Service plus and DMS**	01		
6	**Data Digitization and Migration**	01		
	Total (A)			

*The unit cost of quoted above shall also be used for calculating the cost of additional integration, if any.

** The discovered unit cost under column "Y" will be treated as discovered unit cost and applicable for entire project period and BIADA may increase the concurrent user based on the discovered price.

(B) Training & Handholding Cost

#	Description	No. of Training units (x)	Unit Cost (y)	Total (x*y)
1	Training Charges	10		
	Total (B)			

(C) Software licenses Cost for O&M period(As per solution).

#	Component Description	Number of Licenses (N)	License Cost (X)	Support Cost for 5Years (Y)	Total Cost= (X+Y) * N
1	ERP System, Enterprise Edition				
2	Business Analytics tool, Enterprise Edition				
3	Database, Enterprise edition (16 Core)				
4	Document Management Software (DMS) (Enterprise Edition)				
	Total (C)				

(D) Onsite cum Offshore Operations and Maintenance Costs including Change Management(To be paid quarterly for 5 years of contract after Go-Live)

Onsite Support

#	Resource Type	No. of Units (x)	No. of Months (y)	Rate per Month (z)	Total Cost (x*y*z)
1	Project Manager cum BusinessAnalyst	1	60		
2	Programmer cum Database Analyst	1	60		
	Total (D1)				

Offshore Support

#	Particulars	Total Cost
1	Operations & Maintenance Cost for 1st Year	
2	Operations & Maintenance Cost for 2nd Year	
3	Operations & Maintenance Cost for 3rd Year	
4	Operations & Maintenance Cost for 4th Year	
5	Operations & Maintenance Cost for 5th Year	
	Total (D2)	
	Total (D= D1+D2)	

(E) Helpdesk Support for 5 Years

#	Particulars	No. of Units (x)	Unit Rate (y)	Total (x*y)
1	Helpdesk Support for 1st Year	2		
2	Helpdesk Support for 2nd Year	2		
3	Helpdesk Support for 3rd Year	1		
4	Helpdesk Support for 4th Year	1		
5	Helpdesk Support for 5th Year	1		
	Total (E)			

The unit rate of the quoted above shall also be used for calculating the cost of additionalresources, if required.

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

-The bid amount for the "Operations and Maintenance Cost" must not be less than 30% of total bid amount. Non- compliance of the above-mentioned condition will lead to the rejection of the bid.

- If there is no price quoted for certain material or service by the bidder, then the bidder must provide/implement the material/service at zero cost.

12. Appendix III: Template for PBG & CCN

12.1 Form 1: Performance Bank Guarantee

PERFORMANCE SECURITY:

BIADA, Udyog Bhawan, Patna

Whereas, <<name of the supplier and address>> (hereinafter called "the Bidder") has undertaken, in pursuance of contract no. <Insert Contract No.> dated. <Date> to provide Implementation services for <<name of the assignment>> to Purchaser (hereinafter called "the beneficiary")

And whereas it has been stipulated by   in the said contract that the Bidder shall furnish you with a bank guarantee by a recognized bank for the sum specified therein as security for compliance with its obligations in accordance with the contract;

And whereas we, <Name of Bank> a banking company incorporated and having its head /registered office at
<Address of Registered Office> and having one of its office at <Address of Local Office> have agreed to give the supplier such a bank guarantee.

Now, therefore, we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of INR<Insert Value> (Rupees <Insert Value in Words> only) and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of INR <Insert Value> (Rupees <Insert Value in Words> only) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Bidder before presenting us with the demand.

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

This Guarantee shall be valid until *<<Insert Date>>*)

Notwithstanding anything contained herein:

I. Our liability under this bank guarantee shall not exceed INR <Insert Value> (Rupees <Insert Value in Words> only).
II. This bank guarantee shall be valid up to *<Insert Expiry Date>*)
III. It is condition of our liability for payment of the guaranteed amount or any part thereof arising under this bank guarantee that we receive a valid written claim or demand for payment under this bank guarantee on or before *<Insert Expiry Date>*) failing which our liability under the guarantee will automatically cease.

12.2   Form 2: Change Control Note/Notice (CCN) Format

Change Control Note	CCN Number:

Part A: Initiation	
Title:	
Originator:	
Sponsor:	
Date of Initiation:	
Details of Proposed Change	
(To include reason for change and appropriate details/specifications. Identify any attachments as A1, A2, and A3 etc.)	
Authorized by :	Date:
Name:	
Signature:	Date:
Received by the IP	
Name:	
Signature:	

Change Control Note	CCN Number:
Part B : Evaluation	
(Identify any attachments as B1, B2, and B3 etc.) Changes to Services, charging structure, payment profile, documentation, training, service levels and component working arrangements and any other contractual issue.	
Brief Description of Solution:	
Impact:	
Deliverables:	
Timetable:	
Charges for Implementation: (including a schedule of payments)	

Other Relevant Information: (including value-added and acceptance criteria)	
Authorized by the Implementation Partner	Date:
Name:	
Signature:	

12.3   Form 3: Affidavit Format

AFFIDAVIT

1) I, the undersigned, do hereby certify that all the statements made in the required attachment are true and correct and if found fake/forged, the undersigned will be liable for infliction upon the HR and lawful punishment as well as blacklisting.
2) The undersigned also hereby certifies that neither our firm M/s................ has been black listed nor has abandoned any work in any government department, India nor any contract awarded to us for such works have been rescinded, during last five years prior to the date of this bid.
3) The undersigned hereby authorizes and request(s) and bank, person, firm or corporation for furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation.
4) The undersigned understands and agrees that further qualifying information may be required and agrees to furnish any such information at the request of the Department / project implementing agency.

(Signed by an Authorized Signatory of the Firm)

Title of Officer Name of Firm Date:

13. Appendix IV: Service Levels

This section describes the service levels to be established for the Services offered by the System Integrator to BIADA. The System Integrator shall monitor and maintain the stated service levels to provide quality service to BIADA

1 Definitions

a) "Scheduled Maintenance Time" shall mean the time that the System is not in service due to a scheduled activity as defined in this SLA. The scheduled maintenance time would not be during 16X5 timeframe. Further, scheduled maintenance time is planned downtime with the prior permission of BIADA

b) "Scheduled operation time" means the scheduled operating hours of the System for the month. All scheduled maintenance time on the system would be deducted from the total operation time for the month to give the scheduled operation time. The total operation time for the systems and applications within the Primary DC, DRC, if any, critical client site infrastructure will be 24X7X365. The total operation time for the client site systems shall be the business hours of BIADA or the offices where system are deployed.

c) "System or Application downtime" means accumulated time during which the System is totally inoperable within the Scheduled Operation Time but outside the scheduled maintenance time and measured from the time BIADA and/or its employees log a call with the System Integrator team of the failure or the failure is known to the System Integrator from the availability measurement tools to the time when the System is returned to proper operation.

d) "Availability" means the time for which the services and facilities are available for conducting operations on the BIADA system including application and associated infrastructure.
Availability is defined as: {(Scheduled Operation Time – System Downtime) / (Scheduled Operation Time)}
* 100%

e) "Helpdesk Support" shall mean the 9x6 basis support center which shall handle Fault reporting, Trouble Ticketing and related enquiries during this contract. Helpdesk support is to be provided from 9:30 AM to 6:30 PM

f) "Incident" refers to any event / abnormalities in the functioning of the any of IT Equipment / Services that may lead to disruption in normal operations of the Data Centre, System or Application services.

2 Interpretation & General Instructions

a. The business hours are 10:00AM to 5:00PM on all working days (Mon-Sat) excluding Public Holidays or any other Holidays observed by BIADA. The System Integrator, however, recognizes the fact that BIADA offices will require to work beyond the business hours on need basis.

b. "Non-Business Hours" shall mean hours excluding "Business Hours".

c. 16X6 shall mean hours between 7.30AM – 11.30PM on all working days (Mon-Sat) excluding Public Holidays or any other Holidays observed by BIADA.

d. The availability for a cluster will be the average of availability computed across all the servers in a cluster, rather than on individual servers. However, non-compliance with performance parameters for infrastructure and system/service degradation will be considered for downtime calculation.

e. System Integrator should provide automated tool to monitor and report all the SLAs mentioned except for the one which is monitored by the EMS in Data Center.

f. The SLA parameters shall be monitored monthly as per the individual SLA parameter requirements.

The System Integrator is expected to provide the following service levels as mentioned in the table below. In case these service levels cannot be achieved at service levels defined in the tables below, it shall result in a breach of contract and invoke the penalty clause.

g. A Service Level violation will occur if the System Integrator fails to meet Minimum Service Levels, as measured on a Quarterly basis, for a particular Service Level. Overall Availability and Performance Measurements will be monthly for the purpose of Service Level reporting. An "Availability and Performance Report" will be provided by the System Integrator on monthly basis in the format suggested by BIADA and a review shall be conducted based on this report. A monthly Availability and Performance Report shall be provided to the BIADA at the end of every month containing the summary of all incidents reported and associated with the System Integrator performance measurement for that period.

h. The SLAs will prevail from the start of the Operations and Maintenance Phase. However, SLAs will be subject to being redefined, to the extent necessitated by field experience at the user units and the developments of technology practices globally. The SLAs may be measured on quarterly basis or as decided by BIADA after taking the advice of the System Integrator and other agencies. In case these service levels cannot be achieved at service levels defined in the tables below, it shall result in a breach of contract and invoke the penalty clause. Payments to the System Integrator are linked to the compliance with the SLA metrics laid down in the tables below. The penalties will be computed and calculated as per the computation explained in this Section. During the contract period, it is envisaged that there could be changes to the SLA, in terms of addition, alteration or deletion of certain parameters, based on mutual consent of both the parties i.e. BIADA and System Integrator.

Following tables outlines the key service level requirements for the system, which needs to be ensured by the System Integrator during the operations and maintenance period. These requirements shall be strictly imposed and either BIADA or a third party audit/certification agency shall be deployed for certifying the performance of the System Integrator against the target performance metrics as outlined in the tables below.

1. **Implementation Service Levels (Development and deployment)**

#	Parameter	Description	Target (in weeks) T= Date of award of contract	Delay (days)	Liquidated damages	Validation Tools / method
1	a) Finalized Requirement report b) Approved System requirement specification	• Requirement gathering • Finalizing custom requirements • Approval of SRS	T+7	<= 2	0.125% of the Application Development and Deployment Cost (as per Form F2A) per day	
				>2 and < 14	0.25% of the Application Development and Deployment Cost (as per Form F2A) for each subsequent day till 13th day	
				>= 14	Event of default. Escalation to BIADA and SI Management	
2	Security audit of the application	Completion certificate	T+30	<= 2	0.125% of the Application Development and Deployment Cost (as per Form F2A) per day	
				>2 and < 14	0.25% of the Application Development and Deployment Cost (as per Form F2A) for each subsequent day till 13th day	
				>= 14	Event of default. Escalation to BIADA and SI Management	
3	Application deployment on SDC and Go Live	Sign off Certificate	T+32	<= 2	0.125% of the Application Development and Deployment Cost (as per Form F2A) per day	
				>2 and < 14	0.25% of the Application Development and Deployment Cost (as per Form F2A) for each subsequent day till 13th day	
				>= 14	Event of default. Escalation to BIADA and SI Management	

The maximum LD will be capped at 10% of the Development and deployment cost.
T – date of issue of Letter of Intent (LoI)/ Work Order.

2. **Operations Service Level**

EMS system as deployed in this RFP shall play a critical role in monitoring the SLA compliance and hence will have to be customized accordingly. Purchaser will provide the EMS tool. The selected System Integrator (SI) must integrate the servers with the EMS tool and develop additional scripts (if required) for capturing the required data for SLA report generation in automated way. This tool would generate the SLA Monitoring report at the end of every month which is to be shared with BIADA on a monthly basis. The tool should also be capable of generating quarterly SLA reports. BIADA will audit the tool and the scripts on a regular basis.
Where required, some of the Service Levels will be assessed through audits or reports e.g. utilization reports, measurements reports, etc., as appropriate to be provided by the System Integrator on a monthly basis, in the formats as required by the BIADA. The tools to perform the audit will need to be provided by the System Integrator.

The penalties levied every quarter shall be capped at 20% of the Quarterly amount. Total penalty however, will be limited to a maximum of 10% of the Contract value.

2.1 Violations and Associated Penalties

1. The primary intent of Penalties is to ensure that the system performs in accordance with the defined service levels. Penalties are not meant to be punitive or, conversely, a vehicle for additional fees.
2. Three-monthly performance evaluation will be conducted using the Quarterly reports of that period.
3. Penalty Calculations: The framework for Penalties, as a result of not meeting the SLA is as follows:
   a) The performance will be measured for each of the defined service level metric against the minimum / target service level requirements and the violations will be calculated accordingly.
   b) The number of violations in the reporting period for each level of severity will be totaled and used for the calculation of Penalties.
   c) Penalties applicable for each of the high severity violations are one (1) % of respective Quarterly payment to the System Integrator.
   d) Penalties applicable for each of the medium severity violations is half percentage (0.5%) of respective Quarterly payment to the System Integrator.
   e) It is to be noted that if the overall penalty applicable for any of the review period during the contract exceeds 20% of the quarterly payment or if the overall penalty applicable for any of the successive Quarterly periods during the contract is above 15%; then BIADA shall have the right to use the Performance Bank Guarantee as deemed fit or terminate the contract or both.

Client side IT Application Performance

Service Level Description	Severity of Violation	Measurement
Application Availability	High	Availability of ERP solution components measured within the Data Center shall be at least 99 %. This service level will be monitored on a monthly basis. | Availability over Quarter	No of violations to be counted for calculation of penalty | | < 99% &>= 98% | 1 | | < 98% &>= 97% | 2 | | < 97% | 3 for every percentage drop or part thereof below 97% | In addition to the above, if the service level in any month in the Quarter falls below 97%, one (1) additional violation will be added for each such month to the overall violations for this service level.
Application Availability	Medium	Availability of non-ERP solution components measured within the Data Center shall be at least 97% This service level will be monitored on a monthly basis. | Availability over Quarter	No of violations to be counted for calculation of penalty | | < 97% &>= 96% | 1 | | < 96% &>= 95% | 2 | | < 95 % | 3 for every percentage drop or part thereof below 95% | In addition to the above, if the service level in any month in the Quarter falls below 95%, one (1) additional violation will be added for each such month to the overall violations for this service level.
Application Performance	High	Average Application Response Time during peak usage hours as measured within the server environment shall not exceed 4 seconds. The list of critical business functions and peak usage hours will be identified by BIADA during the Supply and System Integration Phase. This service level will be monitored on a monthly basis. | Average Application Response Time over the Quarter	No. of Violations to be counted for calculation of penalty | | > 4sec &<= 5sec | 2 | | > 5sec &<= 6sec | 4 | | > 6sec | 5 for every second increase or part thereof exceeding 6 seconds | In addition to the above, if the average application response time in any month in the quarter goes beyond 6s, one additional violation will be added for each such month to the overall violations of this service level.

Handholding Support: Application Support

a) Level 1 Defects: The failure to fix has an immediate impact on the BIADA's ability to perform critical functions.
b) Level 2 Defects: The failure to fix has an impact on the BIADA's ability to perform routine functions / that while not immediate, can cause service to degrade if not resolved within reasonable time frames.
c) Level 3 Defects: The failure to fix has no direct impact on the BIADA's ability to perform critical functions.
d) The severity of the individual defects will be mutually determined by the BIADA and System Integrator.
e) This service level will be monitored on a monthly basis.
f) The below tables gives details on the Service Levels the System Integrator should maintain.

Service Level Description	Severity of Violation	Measurement
Application Support Performance	High	95% of the Level 1 defects shall be resolved within 4 business hours from the time of reporting full details. This service level will be monitored on a monthly basis. <table><tr><td>Performance over the Quarter</td><td>Violations for calculation of penalty</td></tr><tr><td>< 95% &>= 90%</td><td>1</td></tr><tr><td>< 90% &>= 85%</td><td>2</td></tr><tr><td>< 85%</td><td>3</td></tr></table> In addition to the above, if the service level in any month in the Quarter falls below 85%, one (1) additional violation will be added for each such month to the overall violations for this service level.
Application Support Performance	High	95% of the Level 2 defects shall be resolved within 72 hours from the time of reporting full details. This service level will be monitored on a monthly basis. < 95% &>= 90% 1 < 90% &>= 85% 2 < 85% 3 In addition to the above, if the service level in any month in the Quarter falls below 85%, one (1) additional violation will be added for each such month to the overall violations for this service level.
Application Support Performance	High	100% of the Level 3 defects shall be resolved within 120 hours from the time of reporting full details. This service level will be monitored on a monthly basis. Performance over the Quarter Violations for calculation of penalty < 100% &>= 90% 1 < 90% &>= 80% 2 < 80% 3 In addition to the above, if the service level in any month in the Quarter falls below 80%, one (1) additional violation will be added for each such month to the overall violations for this service level.

14. Appendix V: Functional
Requirements

Functional Features

To successfully design and implement an ERP Solution it is required to define the functional requirements of various modules / sub-modules of the proposed ERP Solution. Functional requirements have been categorized on the basis of different modules / sub-modules of the proposed ERP solution. The minimum functional requirements of the ERP solution for BIADA is given hereunder. However it is preferable to understand the actual requirements of each process given in the To-Be report and the input of the officials/users of BIADA should also be considered while designing/implementing the ERP solution.

1. Investment Promotion Module

SI#	Functional Requirements
Registration	
FR 01	Allow registration of new Query of Investor Received by BIADA
FR 02	Allow registration of new investment lead generated by IP Team.
FR 03	Capture details of Sector, company profile, promoter, owner, investment size, turnover etc of investor
FR 04	Provide status updates on follow up call made by BIADA.
FR 05	Capture all call logs, responses to queries, within the system
FR 06	Give picture of investment grounding against all such leads generated
FR 07	Msg, email, calling feature with audit trail
FR 08	Generate reports and trends
FR 09	Able to give clear picture regarding total subsidy possible in a proposal based on the policies
Land bank management	
FR 10	GIS 3D mapping of all land bank
FR 11	Details of all the lands allotted along with company profile, investment size, manpower employed, turnover
FR 11	Integration with existing land allotment portal
Monitoring & Tracking	
FR 38	Implement real-time monitoring of Investment promotion activities
FR 39	Capture key performance indicators (KPIs) of Investment promotion activities
FR 40	Provide dashboards and reports for performance analysis.
FR 43	Implement measures to ensure data accuracy and integrity in monitoring and tracking activities.
FR 44	Enable continuous improvement through feedback loops and performance analytics.

2. Finance and Accounting Module

SI#	Functional Requirements
General Ledger and Bank Accounting	
FR 01	Implement a system to record and track all financial transactions in the general ledger.
FR 02	Ensure compatibility with accounting standards and regulatory requirements.
FR 03	Provide functionality for journal entry creation, posting, and approval.
FR 04	Facilitate reconciliation between general ledger balances and bank statements.
FR 05	Implement security measures to restrict access to sensitive financial data.
FR 06	Provide audit trails and logs for accountability and transparency.
FR 07	Generate financial statements such as balance sheets, income statements, and cash flow statements.
FR 08	Enable real-time visibility into general ledger balances and transactions.
FR 09	Integrate with other modules such as accounts payable and accounts receivable for seamless data flow.
Accounts Payable	
FR 10	Capture and track all vendor invoices and payments.
FR 11	Implement approval workflows for invoice processing and payment authorization.
FR 12	Facilitate matching of purchase orders, receipts, and invoices to ensure accuracy.
FR 13	Enable automated payment scheduling and processing.
FR 14	Implement controls to prevent duplicate payments and fraud.
FR 15	Enable vendor management functionality for maintaining vendor master data.
FR 16	Integrate with general ledger for automatic posting of payable transactions.
FR 17	Facilitate electronic communication with vendors for invoice submission and inquiries.
Accounts Receivable	
FR 18	Capture and track all vendor invoices.
FR 19	Enable vendor management functionality for maintaining master data.
FR 20	Integrate with general ledger for automatic posting of receivable transactions.
Asset Accounting	
FR 21	Capture and track all fixed assets owned by the organization.
FR 22	Implement asset master data management functionality for recording asset details and attributes.
FR 23	Facilitate asset acquisition, depreciation, and retirement processes.
FR 24	Enable automated depreciation calculations based on predefined methods.
FR 25	Integrate with procurement and finance systems for seamless data flow.
FR 26	Provide reporting on asset utilization, depreciation expense, and asset impairment.
FR 27	Implement asset reconciliation processes to ensure alignment with physical inventory.
FR 28	Generate reports on asset register, depreciation schedules, and asset maintenance.
FR 29	Ensure compliance with accounting standards and regulatory requirements governing asset accounting.
Bank Accounting	
FR 30	Capture and reconcile all bank transactions including deposits, withdrawals, and transfers.
FR 31	Implement bank statement import functionality for automated data entry.

SI#	Functional Requirements
FR 32	Facilitate bank reconciliation processes to ensure accuracy of cash balances.
FR 33	Provide functionality for bank fee analysis and adjustment.
FR 34	Enable integration with general ledger for automatic posting of bank transactions.
FR 35	Facilitate cash flow forecasting and liquidity management.
FR 36	Generate reports on bank reconciliation status, bank charges, and cash flow projections.
Financial Accounting and Controlling	
FR 37	Capture and consolidate financial data from various modules and sources.
FR 38	Implement cost allocation and distribution functionality for accurate cost reporting.
FR 39	Facilitate budgeting and forecasting processes for financial planning.
FR 40	Provide variance analysis and performance reporting against budgeted targets.
FR 41	Enable real-time monitoring of financial performance against key metrics.
Cost Center Accounting	
FR 42	Capture and allocate costs to various cost centers within the organization.
FR 43	Implement cost center hierarchy and structure for reporting and analysis.
FR 44	Facilitate cost allocation methodologies such as direct, indirect, and activity-based costing.
FR 45	Provide visibility into cost center budgets, actual expenditures, and variances.
FR 46	Enable cost center planning and forecasting processes.
FR 47	Implement controls to prevent unauthorized cost center spending.
FR 48	Integrate with general ledger for automatic posting of cost center transactions.
FR 49	Generate reports on cost center performance, spending trends, and budget utilization.
FR 50	Implement alerts for cost overruns and deviations from budgeted targets.
FR 51	Enable cost center managers to monitor and track their budgets and expenditures.
FR 52	Provide transparency into cost allocation methodologies and assumptions.
Financial Accounting Reporting	
FR 53	Generate standard financial reports such as balance sheets, income statements, and cash flow statements.
FR 54	Provide customizable report templates to meet specific reporting requirements.
FR 55	Enable ad-hoc reporting for on-demand analysis and decision-making.

3. Project Management

SI#	Functional Requirements
Project Planning and Scheduling	
FR 01	Enable creation of project plans with defined tasks, dependencies, and timelines.
FR 02	Allow for assignment of resources to tasks and allocation of work hours.
FR 03	Enable scheduling of milestones and key project events.
FR 04	Facilitate collaboration and communication among project team members.
FR 05	Implement baseline tracking to compare planned vs. actual progress.
FR 06	Enable project managers to adjust schedules and resources as needed.
FR 07	Provide alerts for missed deadlines and schedule deviations.
FR 08	Integrate with calendar and scheduling tools for seamless coordination.
FR 09	Facilitate version control and history tracking for project schedules.

SI#	Functional Requirements
Project Tracking and Execution	
FR 10	Capture and track project progress against defined milestones and deliverables.
FR 11	Provide real-time visibility into project status and task completion.
FR 12	Enable issue tracking and resolution to address project roadblocks.
FR 13	Facilitate time tracking and reporting for accurate project progress assessment.
FR 14	Implement workflow automation for streamlined task execution.
FR 15	Enable collaboration and communication among project stakeholders.
FR 16	Provide dashboards and reports for project performance analysis.
FR 17	Enable project managers to make data-driven decisions based on real-time information.
FR 18	Implement alerts and notifications for project status updates and milestones.
FR 19	Ensure data security and confidentiality of project information.
Project Tracking and Execution	
FR 20	Capture and manage project resources including human, financial, and material resources.
FR 21	Provide visibility into resource availability, utilization, and allocation.
FR 22	Enable resource scheduling and assignment based on skill sets and availability.
FR 23	Facilitate resource forecasting and planning for future projects.
FR 24	Enable collaboration and communication among project team members.
FR 25	Ensure compliance with labor regulations and contractual agreements.
Budgeting and Cost Management	
FR 26	Capture and manage project budgets including funding sources and allocations.
FR 27	Provide visibility into project expenditures and budget utilization.
FR 28	Enable budget tracking against planned expenditures and forecasts.
FR 29	Facilitate budget adjustments and reallocations as needed.
FR 30	Implement controls to prevent budget overruns and unauthorized spending
FR 31	Enable expense tracking and categorization for accurate cost analysis.
FR 32	Integrate with accounting systems for seamless financial data flow.
FR 33	Provide alerts for budget deviations and potential cost overruns.
FR 34	Enable variance analysis and reporting for budget performance assessment.
FR 35	Facilitate approval workflows for budget changes and expenditures.
Risk Management	
FR 37	Identify and assess project risks including potential impacts and likelihood.
FR 38	Implement risk mitigation strategies and action plans.
FR 39	Enable risk prioritization based on severity and probability.
FR 40	Facilitate risk monitoring and tracking throughout the project lifecycle.
FR 41	Enable risk reporting and communication to project stakeholders.
FR 42	Integrate with project planning and execution tools for risk management.
FR 43	Provide alerts for new risks and changes to risk status.
FR 44	Facilitate risk workshops and reviews for continuous improvement.
Change Management	
FR 46	Capture and assess proposed changes to project scope, schedule, or resources.

SI#	Functional Requirements
FR 47	Implement change request workflows for formal change approval.
FR 48	Facilitate impact analysis to assess the implications of proposed changes.
FR 49	Provide visibility into change status and history.
FR 50	Enable documentation and tracking of change requests and approvals.
FR 51	Integrate with project planning and scheduling tools for change implementation.
FR 52	Provide alerts for pending change requests and approvals.
FR 53	Facilitate change communication and training for affected stakeholders.
FR 54	Ensure compliance with change management policies and procedures.
Reporting and Analytics	
FR 56	Generate standard reports such as project status reports, milestone reports, and budget reports.
FR 57	Provide customizable report templates to meet specific reporting requirements.
FR 58	Enable ad-hoc reporting for on-demand analysis and decision-making.
FR 59	Implement dashboards for real-time project performance monitoring.
FR 60	Provide drill-down functionality for detailed analysis of project data.
FR 61	Ensure data accuracy and consistency across reports and analytics.
FR 62	Facilitate collaboration and sharing of reports among project stakeholders.
FR 63	Integrate with document management systems for easy access to project documentation.
FR 64	Ensure scalability to accommodate growing reporting needs and changing business requirements.
FR 65	Facilitate audit trails and documentation for regulatory compliance.
Project Creation and Funding	
FR 66	Enable creation of new projects with detailed descriptions and objectives.
FR 67	Capture project funding sources, budgets, and financial allocations.
FR 68	Provide visibility into project funding status and availability.
FR 69	Facilitate approval workflows for project funding requests.
FR 70	Enable documentation and tracking of project funding sources and allocations.
Milestone Tracking	
FR 71	Define and track project milestones and deliverables.
FR 72	Provide visibility into milestone status and completion dates.
FR 73	Facilitate milestone planning and scheduling.
FR 74	Implement alerts and notifications for upcoming milestones.
FR 75	Enable milestone dependency management to ensure sequential completion.
FR 76	Generate milestone reports and dashboards for project status communication.
FR 77	Ensure alignment of milestones with project objectives and goals.
FR 78	Enable milestone performance analysis and trend reporting.
Expenditure Tracking	
FR 79	Capture and track project expenditures including labor, materials, and overhead costs.
FR 80	Provide visibility into expenditure status and budget utilization.
FR 81	Facilitate expense categorization and allocation to specific project activities.
FR 82	Enable expense approval workflows for authorized spending.

SI#	Functional Requirements
FR 83	Implement controls to prevent unauthorized expenditures and budget overruns.
FR 84	Integrate with accounting systems for seamless financial data flow.
FR 85	Provide alerts for budget deviations and potential cost overruns.
FR 86	Enable variance analysis and reporting for expenditure performance assessment.
FR 87	Generate expenditure reports and dashboards for project cost analysis.
Purchase Order Generation	
FR 88	Enable creation of purchase orders for project-related purchases.
FR 89	Capture vendor information, item details, quantities, and prices.
FR 90	Implement approval workflows for purchase order generation.
FR 91	Facilitate integration with procurement systems for vendor selection and pricing.
FR 92	Provide visibility into purchase order status and history.

4. Human Resource

SI#	Functional Requirements
Employee Directory	
FR 01	Capture and maintain employee information including personal details, contact information, and employment history.
FR 02	Enable search and filtering functionality for easy retrieval of employee records.
FR 03	Facilitate employee self-service for updating personal information and accessing company directories.
FR 04	Implement access controls to restrict sensitive information based on user roles and permissions.
FR 05	Provide integration with HRIS systems for seamless data exchange.
FR 06	Enable customization of employee profiles to capture additional information as needed.
FR 07	Ensure data security and compliance with data protection regulations.
FR 08	Provide reporting capabilities for workforce demographics and headcount analysis.
FR 09	Ensure scalability to accommodate a growing workforce and changing organizational needs.
FR 10	Facilitate communication and collaboration among employees through directory features.
FR 11	Implement version control and audit trails for data integrity and accountability.
Recruitment and Onboarding	
FR 12	Capture and manage job vacancies, job descriptions, and candidate profiles.
FR 13	Provide a centralized platform for job posting and applicant tracking.
FR 14	Facilitate candidate screening, assessment, and interview scheduling.
FR 15	Implement workflows for candidate selection, offer generation, and onboarding.
FR 16	Provide visibility into recruitment pipelines and hiring status.
FR 17	Enable collaboration among hiring managers and recruitment teams.
FR 18	Facilitate electronic document management for onboarding paperwork.
FR 19	Integrate with HRIS systems for seamless transfer of employee data from recruitment to onboarding.
Time and Attendance Management	
FR 20	Capture and track employee work hours, including regular hours, overtime, and leave.

SI#	Functional Requirements
FR 21	Provide multiple methods for time capture, such as biometric devices, web portals, and mobile apps.
FR 22	Implement approval workflows for timesheet submission and verification.
FR 23	Facilitate scheduling of shifts and assignments based on employee availability and business needs.
FR 24	Provide real-time visibility into attendance status and deviations.
FR 25	Facilitate leave request submission and approval processes.
FR 26	Integrate with payroll systems for accurate calculation of wages and salaries.
FR 27	Implement alerts for attendance policy violations and exceptions.
FR 28	Provide reporting capabilities for attendance analysis.
Leave Management	
FR 29	Capture and manage employee leave requests, including vacation, sick leave, and personal time off.
FR 30	Provide self-service functionality for employees to submit leave requests and check leave balances.
FR 31	Implement approval workflows for leave requests based on predefined policies and rules.
FR 32	Facilitate tracking of leave accruals, balances, and usage history.
FR 33	Integrate with payroll systems for accurate calculation of leave balances and payouts.
FR 34	Facilitate communication between employees and managers regarding leave requests.
FR 35	Provide reporting capabilities for leave utilization, trends, and compliance.
FR 36	Ensure compliance with labor laws and company leave policies.
FR 37	Enable automatic notifications for upcoming leave expirations and renewals.
FR 38	Integrate with HRIS systems for seamless data exchange and employee record updates.
Payroll Management	
FR 39	Capture and process employee payroll information, including wages, salaries, and deductions.
FR 40	Facilitate payroll calculation, including gross-to-net calculations and tax withholding.
FR 41	Implement automated payroll scheduling and processing based on predefined cycles.
FR 42	Provide integration with time and attendance systems for accurate payroll calculations.
FR 43	Enable customization of payroll components and earnings/deductions categories.
FR 44	Ensure compliance with tax regulations, labor laws, and union agreements.
FR 45	Implement controls to prevent payroll errors and discrepancies.
FR 46	Facilitate direct deposit and electronic pay stub delivery to employees.
FR 47	Provide reporting capabilities for payroll summaries, tax filings, and compliance audits.
FR 48	Enable self-service functionality for employees to view and print pay stubs, W-2 forms, and tax documents.
FR 49	Integrate with accounting systems for general ledger posting and financial reporting.
FR 50	Facilitate year-end payroll processing, including tax reporting and reconciliation.
EPF and Pension Management	
FR 51	Capture and manage employee contributions to EPF (Employees' Provident Fund) and pension schemes.
FR 52	Facilitate enrollment of employees in EPF and pension programs.
FR 53	Implement contribution calculation and deduction processes based on regulatory requirements.

SI#	Functional Requirements
FR 54	Provide visibility into employee contribution balances and investment options.
FR 55	Facilitate communication and education regarding EPF and pension benefits.
FR 56	Ensure compliance with EPF regulations and reporting requirements.
FR 57	Integrate with payroll systems for accurate calculation and remittance of contributions.
FR 58	Implement controls to prevent errors and discrepancies in contribution calculations.
FR 59	Provide reporting capabilities for EPF and pension contribution summaries and compliance.
FR 60	Enable self-service functionality for employees to view and manage their EPF and pension accounts.
FR 61	Facilitate coordination with EPF authorities and pension fund managers.
FR 62	Ensure transparency and accountability in EPF and pension management processes.
FR 63	Integrate with HRIS systems for seamless data exchange and employee record updates.
Workforce Management	
FR 64	Capture and manage workforce data including employee demographics, skills, and qualifications.
FR 65	Provide visibility into workforce availability, utilization, and capacity.
FR 66	Facilitate workforce planning and forecasting based on business needs and growth projections.
FR 67	Implement talent acquisition strategies to attract and retain top talent.
FR 68	Enable succession planning and talent development initiatives.
FR 69	Integrate with performance management systems for talent assessment and development planning.
FR 70	Enable workforce segmentation based on job roles, skills, and performance levels.
Training and Development	
FR 71	Capture and manage employee training needs, plans, and schedules.
FR 72	Facilitate identification of training gaps and skill requirements.
FR 73	Provide access to a centralized training catalog with a variety of courses.
FR 74	Implement registration and enrollment workflows for training programs.
FR 75	Enable tracking of training attendance, completion, and performance.
FR 76	Facilitate evaluation and feedback processes for training effectiveness.
FR 77	Integrate with performance appraisal systems for competency assessment and development planning.
FR 78	Provide visibility into employee training history.
FR 79	Implement learning management system
Performance Appraisal	
FR 80	Capture and manage employee performance goals, objectives, and feedback.
FR 81	Facilitate performance appraisal cycles including goal setting, mid-year reviews, and annual evaluations.
FR 82	Implement performance assessment criteria and rating scales aligned with organizational objectives.
FR 83	Provide visibility into employee performance metrics and ratings.
FR 84	Enable feedback mechanisms for managers, peers, and direct reports.

5. Court Case Monitoring System

SI#	Functional Requirements
FR01	Provision for filling of appeal online
FR 02	Provision for system-based case hearing, notice and alert, order record
FR 03	Levels based system of appeal and hearing
FR04	Facility to Download of CWJC of Courts and transfer to concerned Cluster DGM
FR05	Should be able to send Statement of fact by the cluster DGMs.
FR06	Provision of document attachment
FR07	Notice, alerts, email system
FR08	External legal opinion system
FR09	Generate report and analysis
FR10	Invoicing facility, fees payment
FR 11	Online case hearing facility

6. Document Management Solution

SI#	Functional Requirements
Document Creation and Capture	
FR 01	Allow creation and capture of documents in various formats (PDF, Word, Excel, etc.).
FR 02	Implement scanning and OCR (Optical Character Recognition) capabilities for digitizing paper documents.
FR 03	Enable template-based document creation to ensure consistency and compliance.
Document Storage and Organization	
FR 04	Provide a centralized repository for storing and organizing documents.
FR 05	Implement folder structures and metadata tagging for easy document retrieval.
FR 06	Enable version control to manage document revisions and history.
Document Access and Security	
FR 07	Implement role-based access controls to restrict unauthorized access to documents.
FR 08	Enable secure sharing of documents with internal and external stakeholders.
FR 09	Provide audit trails to track document access and modifications.
Analytics and Reporting	
FR 10	Implement advanced search functionality to locate documents based on keywords and content.
FR 11	Provide filters and sorting options to refine search results.
FR 12	Enable full-text search capabilities for comprehensive document retrieval.
User Interface and Experience	
FR 13	Provide a user-friendly and intuitive interface for easy document management.
FR 14	Enable mobile access to documents and document management features.
FR 15	Offer personalization options for user dashboards and settings.

7. Mobile Application

SI#	Functional Requirements
Mobile Application	
FR 01	Mobile application needs to be developed for usage by BIADA officials and Investors
FR 02	This application will be credentials based and having limited access
FR 03	This application should capable to be used in investment promotion activities and event management.
FR 04	Responsive Design: Ensure that the mobile application interface is responsive, adapting to different screen sizes and orientations for optimal viewing of reports on both Android and iOS devices.
FR 05	User Authentication: Implement secure user authentication mechanisms such as biometric authentication, PIN, or password login to ensure authorized access to reports.
FR 06	Cross-Platform Compatibility: Develop the mobile application using cross-platform frameworks such as React Native or Flutter to ensure compatibility with both Android and iOS devices.
FR 07	Native App Experience: Design the mobile application to provide a native app experience on both Android and iOS platforms, including native navigation patterns.
FR 08	Report Categories: Organize reports into categories and sections within the mobile application, allowing users to easily navigate, access and download the relevant reports.
FR 09	Data Compression: Optimize report data for mobile viewing by compressing images, reducing file sizes, and minimizing network bandwidth usage to ensure fast loading times.
FR 10	Push Notifications: Send push notifications to users to alert those when new reports are available or when scheduled reports are generated, keeping them informed in real-time.
FR 11	View Customization: Allow users to view reports directly within the mobile application, such as adjusting date ranges, applying filters, and selecting display options, approvals, rejections etc.

8. Technical Features

Compliance to all the Technical Requirements is MANDATORY.

#	Category
1	The solution should be highly scalable and capable of delivering high performance as & when transaction volumes/ users increases without compromising on the response time.
2	All components of the IT Infrastructure should be based on standards to avoid compatibility issues
	The solution proposed should include servers with latest CPU architecture offered by hardware provider. Bidder has to provide only server sizing and hardware will be provided by BIADA.
3	The solution shall be supported on client with Mobile Devices (PDA)
4	The IT infrastructure should support Windows 7, Windows Vista, Windows XP, Windows 2000, and Linux& Unix Operating System.
5	The development infrastructure in the proposed solution will be needed to support ongoing development/upgrade needs during and post implementation.
6	The solution should support N-tier architecture
7	The solution should support thin client
8	The solution shall run on commonly used browsers. In case of any additional plug in's to be installed, the same should be freely downloadable. The solution should support at the minimum MS IE, Firefox Mozilla and Google Chrome. The solution should be downward compatible for the browsers.
9	User Interface should require only standards compliant browsers with standard support for JavaScript and HTML. Full-fledged functionality of ERP should be accessible through standard browser without any additional software installation.

10	The proposed solution should have the following operating flexibility: • Accommodate multiple levels of Organization structure • Multiple financial years processing capabilities • To modify and reorganize all menus • Multi-user logging in remote location • Open work group environment where users can access same information at the same time
11	The solution will initially be required to cover a range of business process modules as detailed above but it should allow addition of more modules or more users or any extra functionality in any module as and when required. The solution proposed should be able to integrate with solutions/products/applications on Open standards
12	The solution should be adaptable to the practices followed in BIADA & in case need arises to customize to any specific requirement(s), it should be possible to do the same in the form of add-ons and routines that can be plugged/unplugged from the base product as the situation arises
13	The solution should use a single unified data model hosted on the database
14	Data redundancy across modules must be minimized to eliminate real time synchronization needs
15	The solution shall provide application architecture which can be integrated with third party/ legacy applications, if required.
16	The solution should be remote access integration compatible for remote operation of System administration, Security Management & Diagnostics/ Fine tuning tools
17	The solution should support traditional integration: • Bulk load of flat files • Application Programming Interface (API) based integration • Message based integration
18	Messaging based integration • Should support guaranteed, delivery of messages • Should use XML based messages
19	• Should support standard transport protocols like but not limited to http, https, ftp, ftps, imap and smtp
20	*SOA based Integration:* "The solution should be able to provide SOA based integration standards like xml, message based and direct connectivity to industry leading databases".
21	Business process Execution Language (BEPL) based Integration • Should be able to orchestrate process flows that are external to the integrated packages • Should support both synchronous and asynchronous integration flows
22	Should support integration based on open standards-based platform
23	Should support sustainable integrations that survive upgrades
24	The solution should have automatic way of migrating the data of existing database in case of data structure change during transfer to new versions
25	The solution should support export and import of data possible from different legacy systems/ other systems/ databases in different file formats (Text, Excel, XML) & on specified time intervals or on real- time basis.
26	It should have the ability to assign validation on specific fields based on entries in the data validation reference file
27	The application should support SSL& digital certificate
28	The solution should be capable of providing Authorization by the transaction type, User Name, User Role etc.
29	The solution should be capable of providing One user multiple roles and vice versa
30	The solution should be capable of providing automatic timeout for transaction entry
31	The solution should be capable of providing automatic timeout for user (log out)
32	The solution should be capable of providing time restriction on transaction
33	The solution should support password encryption while passing on wire
34	Ability to allow definition of rules for password composition and password encryption as per BIADA IT security policy

35	System should support configurable password policies including: • Password expiry • Password complexity • Password history and reuse policy • Forced password change on first log on
36	Ability to configure the number of permissible log-in attempts.
37	Ability to handle data updating/deletion/creation only through application layer
38	Session limits must exist for the application. For each session type, there must be limits on the number of sessions per user or process ID and the maximum time length of an idle session
39	System should allow proxy users. For example, an executive can designate an assistant as a proxy, allowing that assistant to create, edit or approve transactions on behalf of that executive. The audit thereafter should state that the action was performed by the proxy user on behalf of a particular user
40	The solution must not enable users to circumvent the intended user interface to access resources in its supporting infrastructure
41	Ability of system to display an appropriate warning message upon user logon. The warning message need not include the following four general elements verbatim but must convey the same meaning: - • Use of application constitutes the user's consent to monitoring. • Use of application is limited to official Login use only. • Unauthorized use is subject to prosecution. • Notice that this is a Login system
42	Ability to provide automatic time out for entry transaction
43	Should not require opening of any special protocols for connecting the user client to the web/ application server. All communication should be on HTTP or HTTPs
44	The database should be certified at Evaluation Assurance Level 4 (EAL) for security
45	The database should support role based access control, user based privileges
46	The database should support password management mechanism for passwords having expiry and likewise for time bound password management rules.
47	The database should support the resource allocated to the per user session.
48	The database should support standalone / integrate with Operating system security.
49	The system should have the option to encrypt data before transferring over a network.
50	The system should have the option to encrypt the data stored in the database.
51	• The system must have proper security and maintenance facility which limits access to the system and its various functions to the users delegated with appropriate authority. • Access to sub-modules / functions within modules restricted to authorized users. • It should provide logging by user and terminal, the date and time of all transactions with details of creation, reading, updating, deletion or printing. • Access should be restricted to different levels as program, module, transaction, etc. • Notify security administrator of unauthorized access or attempted access and record in a log with reporting. • Multilevel security system at operator, supervisors, module owners, administrator level.
52	The solution should have a business role management solution integrated with the user management solution

53	The solution should have the ability to integrate with directory services for authentication and authorization and support the following features – • Support of LDAP (Lightweight Directory Access Protocol) to allow systems access to the directory • The system should provide capabilities to receive inputs from Human resource management system with respect to user information: In order to get all the user data into the provisioning tool without manually recreating them, it must be possible to get the data and then the subsequent changes from a trusted data source. Most probably such a store with integrity will be the HRMS solution. Hence the provisioning tool must have an option to accept a feed from such systems • The system should have the ability to support role based access control • Ability to provide access level security for Entry forms at Field level - allow, Read only, Hide • Ability providing access level security for Entry forms at Transaction level - allow / deny • Allow providing access level security for reports at Field level - show / hide • Allow providing access level security for reports at Transaction level - allow / deny • Users should not be allowed to access the database directly • Ability to provide authorization by user name • Centralized repository of all identification and access control data
54	The solution should have the ability to support multi-tier authentication where required
55	The solution should have the ability to assign activities to roles, and map roles to users
56	The solution should have the ability to provide user and user group authorization administration tool to assign security levels to functions and data, and allow the access by users / by groups with valid security level only
57	The solution should have the ability to restrict users from unauthorized access by allowing only the authorized users with valid profile/password to access only the allowed transaction, as well as be capable of logging off unauthorized users
58	The solution should have the ability to provide multi-level access management. The following should be provided: • User identification; • Limitation of user rights to perform operations; • Data confidentiality provision; • User actions audit and protocols.
59	Ability of system to support the following under user account management: • Unique user IDs • Disabling of inactive user IDs
60	The system should be able to define audit trails, audit logs and transaction logging requirements (what, when, who has changed)
61	It should enable audit trails on-line, tailor audit requirements by modules, call audit records to an archive based on date or other recorded audit details. The system should allow recovery of data in case of hardware failure and data corruption. It should be able to perform recovery to a point of time, to known backup database
62	The system shall ensure that the audit files are stored in un-editable formats
63	The system should support audit trails at the data level. The basic audit details like the user name, date and time , operation performed (update or insert) for each transaction should be available easily , without having to run queries or reports
64	It should be possible to track database super-user activity in operating system files

65	The solution should be capable of providing the following kinds of Audit Trail:
	 • Audit trail of Time Stamp & User ID stamp for the following
	     o Transactions
	     o Parameter Changes

66	All changes to data should be recorded in a separate table and should be stamped with the identity of the user/program and the time of the creation/change
67	Views should be available for reporting on data changes
68	It should be possible to audit users at the form level, user level, application module level and at the organizational role level

69	The system should provide reports on user activity based on the role and the application that was used
70	The system should support for auditing to track and monitor user behavior with details about the level of detailing stored by the system
71	Should capture before / after values from transaction logs and raise alert on critical and suspicious activity
72	The system should have the ability to identify users that have exploited access privileges, identify root causes of conflicts and be capable of interrogating the security log
73	The solution should support TCP/ IP, HTTP & HTTPs for all traffic between the user screens & the system
74	The solution should support the following network types: • LAN & WAN • Leased Lines • ASDL lines • Satellite Networks • Mobile data service network (GPRS) • MPLS based networks • VPNs • Etc.
75	The solution should provide context based help facilities wherein the users can obtain system specific technical/ functional help online
76	The system should provide online context-based help facilities at field level and also online help at function, screen and field level. Interactive tutorial and demo package should also be provided
77	The solution should have unified, easy, flexible and user friendly interface enabling the following settings: • Personal User menu • Personal User settings • Field Placement on screen • Field composition on screen
78	The user interfaces should be friendly and GUI/browser based
79	All modules should be homogenous with respect to keyboard use, screen layout and menu operations with Graphic User Interface (GUI) support
80	The solution should have the ability to provide UI suitable for non-technical business users and IT experts
81	There should be sufficient edit and validation checks in the system
82	Capability to setup logic to trap conditions to pop messages in response to conditions like logical data entry errors, certain conditions etc. without coding effort, which does not require additional steps to be retained during an upgrade
83	It should provide safeguards to prevent damage to data from operator errors, simultaneous updates, module unavailability or system failures
84	It should have facility to display confirmation / warning windows for deletes, changes etc.
85	The system should provide consistent screen layouts and access methods across all modules so that they look and behave the same
86	It should provide on-line error reporting and use a menu-based system with facilities to bypass menus by experienced operators
87	The system should provide drill down facility to next level of details and so on
88	The Solution should provide user friendly interfaces for transactions, screen navigation, query, generation of reports, data exports, etc.
89	Ability to provide these configurations down to the user level so that the screen can be made to have different functionality for a given user (for example one user can only see limited fields, while another can only query a screen
90	When a user opens a form, the fields should be displayed according to user preferences and the data should be pre-populated with the relevant data subset
91	Users should be able to choose a search option (simple search or advanced search).Users should be provided an option to add additional filtering criteria to the search such as adding 'AND' and 'OR' conditions

92	Tailor column table titles without writing any code
93	Hide/ show columns without writing any code
94	Reorder columns without writing any code
95	Add data filters without writing any code
96	Change sorting orders without writing any code
97	Tailor text for labels, prompts and tip messages without writing any code
98	It should be possible to add more fields to the data input screens for capturing additional business specific information without having to write any code.
99	This functionality should be available to authorized business users to configure the screens appropriately
100	It should be possible to configure the additional fields to only pop-up when required based on the data entered in the form
101	It should be possible to configure the additional fields in a hierarchical dependency so that additional fields are exposed based on values chosen in earlier fields
102	Any upgrades should not affect the current version adversely
103	The solution architecture should be with minimum package modifications so as to preserve the package upgrade
104	The implementation procedure for the proposed solution must ensure that to the largest possible extent no changes are required to be incorporated in the base product's source code. This will ensure smooth migration to later versions of the base product
105	The Solution should have built in source code control program or should support integration with any third party source code control program
106	The solution should support the connectivity to the database through ODBC, OLEDB, JDBC or through Native drivers
107	The workflow should be an integral part of the solution
108	The solution should have the ability to support automated workflow designed to address needs of business users
109	The solution should have the ability to support multiple workflow paths that are automatically selected based on request/user attributes, including escalation paths
110	The solution should support standard work flow languages
111	The workflow should have a rules engine that allows rules to be created to define approval hierarchies
112	The workflow should hold transactions in pending status and not commit them until all approvals are obtained
113	The workflow should be able to send notifications when manual intervention is required in a process
114	The workflow should provide a web based end user interface that can integrate with the portal
115	It should be possible to create workflow diagrams that can be shared with business users to verify the workflow
116	The workflow should provide a drag and drop GUI based single/ common design tool to define and alter business process across all modules of the ERP
117	It should be possible to define the process hierarchies top down or bottom up to support distributed workflow process definition
118	There should be no limit on the hierarchy levels that can be defined
119	A management console should be available to monitor workflow processes and to control processes that have errors in them
120	Ability of system to have workflow with the ability to define business rules without the need for programming, including alerts and triggers
121	The workflow should interface with email system supporting SMTP for sending out notifications and IMAP for receiving the notification responses
122	It should be possible to delegate certain notifications to another user for a certain period, without actually sharing the password
123	This should also support creation of secondary workflow by any user in the main workflow, during any stage of the parent workflow and keep track of the same along with the parent workflow
124	The solution portal support personalization and role based access
125	The solution should provide a tool for content management
126	The solution portal should enable authentication of users

127	The solution should allow Single-sign on to other components possible through the portal
128	The solution should include automatic indexing and searching Portal
129	The system should be able to archive data, based on user specified parameters (i.e. data range) and restore archival data for on-line use when required
130	All development tools should be GUI based. The tools to be provided for: • Creating data entry screens • Fixed format reporting • User driven ad-hoc reports creation
131	Development tools should not use proprietary languages for writing programs. Development Tools should be able to use Open standards based programming languages
132	The solution should be capable of scheduling a report for execution / refresh and/or distribution and/or publish
133	The solution should be capable of distributing reports through email as Body or Attachment
134	The solution should permit viewing of reports through web
135	The solution should permit prioritizing reports during execution
136	The solution should be capable of publishing reports to a central store for access by different users
137	The solution should allow users to send report to specified user(s) at scheduled times
138	The solution should have interface to search and filter the data of the report
139	The solution should provide exception reporting mechanism
140	The solution should provide Senior Management Dashboards
141	The solution should be capable of drill down and drill up with the report tool
142	The solution should be capable of creating ad-hoc queries and reports for analysis
143	Should not require knowledge of SQL or database to create self-service adhoc reports
144	The solution should support multiple column sorting, custom sorting
145	The solution should be able to convert reports to MS-Excel, MS- Word & PDF format directly
146	The solution should provide the following display formats in the reports: • Sections • Tables • Pivots • Charts
147	The solution should be capable of archiving reports and store them in Document Management System
148	The solution should allow reports to be sent directly to networked Printer
149	The solution should permit display of multiple result sets in the same document
150	The solution should permit the user to browse through metadata for detailed information on objects to build adhoc reports
151	The solution should facilitate the user to create custom objects/formulas for repeated use in reporting tool
152	The solution should provide graphical interface for creating custom formulas
153	The solution should have a GUI tool with drag and drop features to build reports
154	The solution should permit conditional formatting, based on thresholds or data ranges for any cell in the report
155	The solution should restrict access to data and report based on user responsibilities
156	The solution should have the ability to allow users the following for creating their own views or reports with ease: • Select column • Apply filters and sort orders • Summation • Drill down / drill up • Averaging

15.   Appendix VI: Non-Functional Requirements

Compliance to all the Non-Functional Requirements is MANDATORY.

1. General requirements of the IT Infrastructure	
1	The solution should be highly scalable and capable of delivering high performance as & when transaction volumes/ users increases without compromising on the response time
2	All components of the IT Infrastructure should be based on standards to avoid compatibility issues
3	The IT Infrastructure should have ability to withstand all single point of failure.
4	The IT Infrastructure should support the use of fault tolerant multiprocessor architecture & cluster processing
5	The IT Infrastructure should support auto-switching to available server in case of server failure
6	The IT Infrastructure should support load balancing
7	It should be possible to configure data replication synchronously or asynchronously
8	The solution proposed should include servers with latest CPU architecture offered by the hardware provider
9	The solution shall be supported on client with Mobile Devices (PDA)
2. General Requirements of the ERP application	
1	The solution should support N-tier architecture
2	The solution should support Thin client
3	The solution shall run on native browser with additional plug in's that should be freely downloadable and should support at the minimum MS IE, Mozilla Firefox & Google Chrome.
4	User Interface should require only standards compliant browsers with standard support for JavaScript and HTML. Full-fledged functionality of Application should be accessible through standard browser without any additional software installation.
5	The solution should perform all functions with keyboard support (mouse is not mandatory)
6	The proposed solution should have the following operating flexibility:
	i. Accommodate multiple levels of Organization structure
	ii. Multiple financial years processing capabilities
	iii. To modify and reorganize all menus
	iv. Multi-user logging in remote location
	v. Open work group environment where users can access same information at the same time
3. Modularity	
The solution will initially be required to cover a range of business process modules as detailed above, but it should allow addition of more modules or more users or any extra functionality in any module or for any user as and when required. The solution proposed should be able to integrate with solutions/products/applications on Open standards	
4. Flexibility	
The solution should be adaptable to changing practices of BIADA & in case needs arise to customize to specific requirements, it should be possible to do the same in the form of add-ons and routines that can be plugged/unplugged from the base product as the situation arises	
5. Data Model	

1	The solution should use a single unified data model hosted on the database
2	Messaging based integration
	• Should support guaranteed, delivery of messages
	• Should use XML based messages
	• Should support standard transport protocols like http, https, ftp, ftps, imap and smtp
3	The should include a catalogue/directory of all the interfaces available for integration
4	Should support integration based on open standards based platform like SOA
5	Should support sustainable integrations that survive upgrades

6. Data Migration
The solution should support export and import of data possible from different legacy systems/ other systems/
databases in different file formats (Text, Excel, XML) & on specified time intervals or on real-time basis.

7. Data Validation
It should have the ability to assign validation on specific fields based on entries in the data validation
reference file

8. Security

1	The application should support SSL & digital certificate
2	The solution should be capable of providing Authorization by the Transaction type, User Name, User Role
3	The solution should be capable of providing One user multiple roles and vice versa
4	The solution should be capable of providing automatic timeout for transaction entry
5	The solution should be capable of providing automatic timeout for user (log out)
6	The solution should be capable of providing time restriction on transaction
7	The solution should support password encryption while passing on wire
8	Ability to allow definition of rules for password composition and password encryption as per BIADA IT policy
9	System should support configurable password policies including: • Password expiry • Password complexity • Password history and reuse policy • Forced password change on first log on
10	Ability to configure the number of permissible log-in attempts.
11	Ability to handle data modification/deletion/creation only through application layer
12	Session limits must exist for the application. For each session type, there must be limits on the number of sessions per user or process ID and the maximum time length of an idle session
13	The solution must not enable users to circumvent the intended user interface to access resources in its supporting infrastructure
14	Ability of system to display an appropriate warning message upon user logon. The warning message need not include the following four general elements verbatim but must convey the same meaning:- • Use of application constitutes the user's consent to monitoring. • Use of application is limited to official Login use only. • Unauthorized use is subject to prosecution. • Notice that this is a Login system
15	Ability to provide automatic time out for entry transaction
16	Should not require opening of any special protocols for connecting the user client to the web/ application server. All communication should be on HTTP or HTTPs
17	The database should support role based access control, user based privileges
18	The database should support password management mechanism for passwords having expiry and likewise for time bound password management rules.
19	The database should support the resource allocated to the per user session.
20	The database should support standalone / integrate with Operating system security.
21	The system should have the option to encrypt data before transferring over a network.
	9. User Access Management
1	The system must have proper security and maintenance facility which limits access to the system and its various functions to the users delegated with appropriate authority.
2	Access to modules / functions within modules restricted to authorized users.
3	It should provide logging by user and terminal, the date and time of all transactions with details of creation, reading, updating, deletion or printing.

4	Access should be restricted to different levels as program, module, transaction, etc.
5	Notify security administrator of unauthorized access or attempted access and record in a log with reporting.
6	Multilevel security system at operator, supervisors, module owners, administrator level.
7	The solution should have a business role management solution integrated with the user management solution
8	The solution should have the ability to integrate with directory services for authentication and authorization and support the following features

    i.   Support of LDAP (Lightweight Directory Access Protocol) to allow systems access to the directory

    ii.   The system should provide capabilities to receive inputs from Human resource management system with respect to user information: In order to get all the user data into the provisioning tool without manually recreating them, it must be possible to get the data and then the subsequent changes from a trusted data source. Most probably such a store with integrity will be the HRMS solution. Hence the provisioning tool must have an option to accept a feed from such systems

    iii.   The system should have the ability to support role based access control

    iv.   Ability to provide access level security for Entry forms at Field level - allow, Read only, Hide

    v.   Ability providing access level security for Entry forms at Transaction level - allow / deny

    vi.   Allow providing access level security for reports at Field level - show / hide

    vii.   Allow providing access level security for reports at Transaction level - allow / deny

    viii.   Users should not be allowed to access the database directly

    ix.   Ability to provide authorization by user name

    x.   Centralized repository of all identification and access control data

    xi.   The solution should have the ability to support multi-tier authentication where required

    xii.   The solution should have the ability to assign activities to roles, and map roles to users

    xiii.   The solution should have the ability to provide user and user group authorization administration tool to assign security levels to functions and data, and allow the access by users / by groups with valid security level only

    xiv.   The solution should have the ability to restrict users from unauthorized access by allowing only the authorized users with valid profile/password to access only the allowed transaction, as well as be capable of logging off unauthorized users

    xv.   The solution should have the ability to provide multi-level access management. The following should be provided:
- User identification;
- Limitation of user rights to perform operations;
- Data confidentiality provision;
- User actions audit and protocols.

    xvi.   Ability of system to support the following under user account management:
- Unique user IDs
- Disabling of inactive user IDs

10. System Control and Audit

1	The system should be able to define audit trails, audit logs and transaction logging requirements (what, when, who has changed)
2	It should enable audit trails on-line, tailor audit requirements by modules, audit records to an archive based on date or other recorded audit details. The system should allow recovery of data in case of hardware failure and data corruption. It should be able to perform recovery to a point of time, to known backup database
3	The system shall ensure that the audit files are stored in un-editable formats
4	The system should support audit trails at the data level. The basic audit details like the user name, date and time , operation performed (update or insert) for each transaction should be available easily , without having to run queries or reports
5	It should be possible to track database super-user activity in operating system files
6	The solution should be capable of providing the following kinds of Audit Trail: • Audit trail of Time Stamp & User ID stamp for the following • Transactions • Parameter Changes
7	All changes to data should be recorded in a separate table and should be stamped with the identity of the user/program and the time of the creation/change
8	Views should be available for reporting on data changes
9	It should be possible to audit users at the form level, user level, application module level and at the organizational role level
10	The system should provide reports on user activity based on the role and the application that was used
11	The system should support for auditing to track and monitor user behavior with details about the level of detailing stored by the system
12	Should capture before / after values from transaction logs and raise alert on critical and suspicious activity
13	The system should have the ability to identify users that have exploited access privileges, identify root causes of conflicts and be capable of interrogating the security log
	11. Network
1	The solution should support TCP/ IP, HTTP & HTTPs for all traffic between the user screens & the system
2	The solution should support the following network types: • LAN& WAN • Leased Lines • ASDL lines • Satellite Networks • Mobile data service network (GPRS) • MPLS based networks • VPNs
	12. User Interface

1	The solution should have unified, easy, flexible and user friendly interface enabling the following settings:

- Personal User menu
- Personal User settings
- Field Placement & composition on screen

2	The user interfaces should be friendly and GUI/browser based
3	All modules should be homogenous with respect to keyboard use, screen layout and menu operations with Graphic User Interface (GUI) support
4	The GUI Form Administration should support the following without coding effort:

- Changing fields or tab labels
- Hiding fields or tabs.
- Changing the position or size of field or labels
- Adding restrictions like mandatory or not
- Setting default value in a field
- Changing list of value (LOV) contents

5	The solution should have the ability to provide UI suitable for non-technical business users and IT experts
6	There should be sufficient edit and validation checks in the system
7	Capability to setup logic to trap conditions to pop messages in response to conditions like logical data entry errors, certain conditions etc. without coding effort, which does not require additional steps to be retained during an upgrade
8	It should provide safeguards to prevent damage to data from operator errors, simultaneous updates, module unavailability or system failures
9	It should have facility to display confirmation / warning windows for deletes, changes etc.
10	The system should provide consistent screen layouts and access methods across all modules so that they look and behave the same
11	It should provide on-line error reporting and use a menu-based system with facilities to bypass menus by experienced operators
12	The Solution should provide user friendly interfaces for transactions, screen navigation, query, generation of reports, data exports, etc.
13	Ability to provide these configurations down to the user level so that the screen can be made to have different functionality for a given user (for example one user can only see limited fields, while another can only query a screen
14	When a user opens a form, the fields should be displayed according to user preferences and the data should be pre-populated with the relevant data subset
15	Users should be allowed to rearrange screen items as per their convenience
16	Users should be able to choose a search option (simple search or advanced search).Users should be provided an option to add additional filtering criteria to the search such as adding 'AND' and 'OR' conditions
17	Tailor column table titles, Hide/ show columns, Reorder columns, Add data filters and Change sorting orders without writing any code
18	Tailor text for labels, prompts and tip messages without writing any code
19	It should be possible to add more fields to the data input screens for capturing additional business specific information without having to write any code.
20	This functionality should be available to authorized business users to configure the screens appropriately
21	It should be possible to configure the additional fields to only pop-up when required based on the data

	entered in the form
22	It should be possible to configure the additional fields in a hierarchical dependency so that additional fields are exposed based on values chosen in earlier fields
13. Up-gradation	
1	The upgrades should not affect the current version adversely
2	The solution architecture should be with minimum package modifications so as to preserve the package upgrade
3	The implementation procedure for the proposed solution must ensure that to the largest possible extent no changes are required to be incorporated in the base product's source code. This will ensure smooth migration to later versions of the base product
14. Source Control	
	The Solution should have built in source code control program or should support integration with any third party source code control program
15. Connectivity	
	The solution should support the connectivity to the database through ODBC, OLEDB, JDBC or through Native drivers
16. Work Flow	
1	The workflow should be an integral part of the solution
2	The solution should have the ability to support automated workflow designed to address needs of business users
3	The solution should have the ability to support multiple workflow paths that are automatically selected based on request/user attributes, including escalation paths
4	The solution should support standard work flow languages

5	The workflow should allow multi-step approval routing. Non repudiation of workflow is to be ensured using digital signature certificates
6	The workflow should have a rules engine that allows rules to be created to define approval hierarchies
7	The workflow should hold transactions in pending status and not commit them until all approvals are obtained
8	The workflow should be able to send notifications when manual intervention is required in a process
9	The workflow should provide a web based end user interface that can integrate with the portal
10	It should be possible to create workflow diagrams that can be shared with business users to verify the workflow
11	The workflow should provide a drag and drop GUI based single/ common design tool to define and alter business process across all modules of the ERP
12	It should be possible to define the process hierarchies top down or bottom up to support distributed workflow process definition
13	There should be no limit on the hierarchy levels that can be defined
14	A management console should be available to monitor workflow processes and to control processes that have errors in them
15	Ability of system to have workflow with the ability to define business rules without the need for programming, including alerts and triggers
16	The workflow should interface with email system supporting SMTP for sending out notifications and IMAP for receiving the notification responses
17	It should be possible to sign approvals in workflow using digital certificate. Ability to verify the signed documents through an evidence store user interface after the signing process
18	It should be possible to delegate certain notifications to another user for a certain period, without actually sharing the password
19	This should also support creation of secondary workflow by any user in the main workflow, during any stage of the parent workflow and keep track of the same along with the parent workflow

	17. Web Portal
1	The solution portal should allow for multiple port-lets to be displayed
2	The solution portal support personalization and role based access
3	The solution should provide a tool for content management
4	The solution portal should enable authentication of users
5	The solution should allow Single-sign on to other components possible through the portal
6	The solution should include automatic indexing and searching Portal

	18. Archival
	The system should be able to archive data, based on user specified parameters (i.e. data range) and restore archival data for on-line use when required
	19. Development Tools

1	The solution should have built in tools and utilities, which will enable BIADA to enhance the ERP for their requirement and maintain the software on their own if required
2	All development tools should be GUI based. The tools to be provided for: • Creating data entry screens • Fixed format reporting • User driven adhoc reports creation
3	Development tools should not use proprietary languages for writing programs.
4	Development Tools should be able to use Open standards based programming languages

20. Testing Tools
The Solution should provide integral load & stress testing tool

21. Reporting Tools

1. The solution should be capable of scheduling a report for execution / refresh and/or distribution and/or publish
2. The solution should be capable of distributing reports through email as Body or Attachment
3. The solution should permit viewing of reports through web
4. The solution should permit prioritizing reports during execution
5. The solution should be capable of publishing reports to a central store for access by different users
6. The solution should allow users to send report to specified user(s) at scheduled times
7. The solution should have interface to search and filter the data of the report
8. The solution should provide exception reporting mechanism
9. The solution should provide Senior Management Dashboards
10. The solution should be capable of drill down and drill up with the report tool
11. The solution should be capable of creating adhoc queries and reports for analysis
12. Should not require knowledge of SQL or database to create self-service adhoc reports
13. The solution should support multiple column sorting, custom sorting
14. The solution should be able to convert reports to MS-Excel, MS- Word & PDF format directly
15. The solution should provide the following display formats in the reports:
    • Sections
    • Tables
    • Pivots
    • Charts
16. The solution should be capable of archiving reports and store them in Document Management System
17. The solution should permit display of multiple result sets in the same document
18. The solution should permit the user to browse through metadata for detailed information on objects to build adhoc reports
19. The solution should facilitate the user to create custom objects/formulas for repeated use in reporting tool
20. The solution should have the ability to allow users the following for creating their own views or reports with ease:
    • Select column
    • Apply filters and sort orders
    • Summation
    • Drill down / drill up
    • Averaging

16. Appendix VII: Acceptance Testing Requirements
Acceptance Testing

Acceptance testing is an essential part of any IT Solution implementation project. In this stage the System Integrator (SI) will test and demonstrate the various individual user specific functionalities as an entire system. The primary goal of Acceptance Testing is to ensure that the ERP solution implemented (including all the systems, deliverables and services) meets the pre-defined requirements/ specifications for functionalities, performance and security. This is ensured by defining clear, quantifiable metrics for accountability for each of the following:

- IT Application (all the modules & sub-modules and integration with other IT systems/ legacy applications
- IT Infrastructure including Network connectivity & hardware components
- Project Documentation

The System Integrator shall primarily be responsible for ensuring that the Acceptance testing is carried out. BIADA along with the project management team (PMU) will approve the completeness of such acceptance testing. System Integrator will have the fundamental responsibility of designing, developing, installing, testing & commissioning the various components of the project to deliver the services in complete conformity with the requirements stated in the RFP & the requisite SLAs. All the corrections/ modifications identified and agreed during the Acceptance Test Procedure (ATP) must be carried out by the System Integrator. The System Integrator will ensure that it provides the system/ test documents for Acceptance Test Procedure as per the Implementation Schedule and then with the facilitation of BIADA will demonstrate, handhold and complete the Acceptance testing expeditiously. If certain minor problems/ faults persist, the System Integrator may proceed with the Acceptance Testing & make mention of the same in the ATP proceedings. The faults can be pursued subsequently and a supplementary ATP limited to maximum of 2 supplementary tests in total can be carried out for the concerned areas.

The SI shall finalize an Acceptance Test schedule at least 7 days in advance of offer for acceptance testing in consultation with BIADA. SI shall also clearly indicate the specifications clause(s) verified by each test. The Acceptance Test schedule shall be exhaustive based on the specifications and will generally cover the following:

- Setting up of the test environment
- Functional test on individual equipment, network, software, Reporting etc. as per specifications
- System and/or Integration test on solution as a whole
- Hardware and network equipment testing before commissioning
- Capacity/ Load test
- 100% traffic trials on the network.
- Data updating at DR site with incremental update as well as flush update.
- Switch over from main site to DR site, Backup, High Availability and Fallback on N+ 1 server.
- Intrusion detection, prevention and security preparation test
- Operation of help desk
- User acceptance testing with parallel run

1. Site Preparation Acceptance

System Integrator in the presence of BIADA or the Nodal Agency accompanied by the PMU team shall perform the site acceptance testing to ensure that the DC and other locations which includes installation of Hardware, quality and completeness ERP Solution, Environment control etc. is in compliance with the specifications/ requirements of the project. Any deviations/gaps identified in the site preparation acceptance will have impact on the payments to be made to the SI.

2. **Integration testing**

After the entire development cycle is over, all the components have to be tested end to end; System Integrated Testing (SIT) would be done. Here SI has to demonstrate the system in a controlled production environment. The SI will carry out the Integration testing to ensure the integration of all the locations with the DC and DR site. The SI will submit the Test plan, Test cases & the Test Data prior to carrying out the Integration testing. The test plan will include the expected results. After the test, the SI will submit the Test Results which would be used to compare the actually observed results recorded during the test against the expected results. The Observations/ Shortfalls/ Errors detected will be rectified by the SI within the specified period of time. The integration testing shall include testing of Network connectivity at all the locations and integration with the DC and DR Site. This phase will include at least the following activities:
- Test Planning
- Test Data Preparation – while SI can state the test data requirement, BIADA will assist in defining the criteria for creation of dummy test data or actual data wherever possible.
- Integration Test Environment Setup in accordance with Technical Architecture Blueprint
- Integration testing (verification of features, inter-operability, application performance, conformance to Architecture Document, conformance to operations procedures & documentation). Architecture Document shall be prepared by SI and submitted to BIADA for approval.
- Mock User Acceptance Test
- Mock Parallel Runs
- Problem Resolution

3. **Functional Requirements Review**

The IT solution developed by SI shall be reviewed and verified by SI in the presence of BIADA or its representatives so as to match the Functional Requirements/ To-be Solution blueprint signed-off between the BIADA and SI. Any gaps shall be addressed by SI immediately. One of the key inputs for this testing shall be the traceability matrix to be developed by the SI for the implementation of the ERP. Apart from Traceability Matrix, the BIADA Nodal Agency and PMU team appointed by BIADA may develop its own testing plans for validation of the compliance of the system against the defined requirements.
For conducting the User Acceptance Testing, BIADA's domain experts team along with any other identified employees from respective divisions/units/verticals, who are responsible for day- to-day operations of the functions automated through this implementation, will validate the tests done by the SI. The system, during the functional requirements review, shall necessarily satisfy the user acceptance testing process.

4. **User Acceptance Test**

   For conducting the User Acceptance Testing, BIADA's IT Core Team along with any other identified employees from respective divisions/units/verticals, shall be responsible for validating and reviewing the day-to-day testing of the functions automated through the IT solution. The system should necessarily satisfy the user acceptance testing process. The IT solution Implemented by SI shall be reviewed and verified, against the Functional & Technical Requirements signed-off between BIADA and SI. Any gaps, identified as a severe or critical in nature, shall be addressed by SI immediately prior to Go-live of the solution. One of the key inputs for this testing shall be the traceability matrix to be developed by the SI for IT solution. The traceability Matrix is a useful tool to determine if a test has been designed for every requirement. It documents the relationship between requirements and acceptance tests. Apart from Traceability Matrix, SI may develop its own testing plans for validation of compliance of system against the defined requirements.

5. **Final Acceptance Testing**

   Pre- requisite of Final Acceptance shall have the following:
   - Installation & commissioning of all hardware, software supplied under this RFP including customization & deployment of IT application, Helpdesk software, SMS Gateway etc.
   - All documentation related to BIADA and relevant acceptance test document (including IT Components, Non IT components).
   - Installation and commissioning shall include:
   o Installation and Commissioning of IT, Non – IT components at DC
   - For both IT & Non-IT equipment's software manuals / brochures / Data Sheets / CD / DVD
   / media are supplied to BIADA
   - All hardware and software items must be installed and commissioned at DC as per the specification.
   - Availability of all the defined services shall be verified and mutually agreed between BIADA and the successful bidder
   - The SI shall be required to demonstrate all the features / facilities / functionalities as mentioned in the RFP.

6. **Performance Review**
   Performance is another key requirement for the Project and BIADA or the Nodal Agency accompanied by the PMU team shall validate and review the performance of the deployed solution. Performance Review will be a regular activity conducted quarterly for the first year after Go-Live during the stabilization and subsequently half yearly for the balance support periods.
   Ongoing Performance Review is to be done after Go-Live at the above mentioned periodic interval of time during the contract period or as decided by BIADA. This review will be done against certain key parameters defined in SLA, to validate the compliance to all service conditions agreed. BIADA or its representatives may carry out all the tests detailed in the acceptance test schedule to confirm that the performance of the different modules, subsystems, and entire installation satisfies the specified requirement of specifications including service performance For BIADA to validate the performance, the SI needs to demonstrate the tests and their results to BIADA during the testing phase. Such parameters include request-response time, work-flow processing time, concurrent sessions supported by the system etc.

The SI shall make available the software programs and testers required for carrying out the acceptance tests as per the schedule. Any additional test equipment deemed required during validation shall be arranged by the SI at no cost to BIADA, so as to complete the validation as per the specified time schedule in this document. The SI shall indicate whether the software package includes programs for testing under full load conditions and overload conditions by creation of artificial data in consultation with BIADA. Such test program shall be provided by the SI for the limited purpose of testing.

Any deficiency found during validation in performance of the system as per the requirement shall be rectified by the SI immediately at all the locations. Any components or modules failing during the acceptance tests or requiring alterations necessary to meet Specification requirements shall be replaced at no extra cost to the Purchaser at site by the SI. These shall be done within two weeks of the initial reports.

7. **Acceptance of Project Documentation**
   BIADA along with the PMU team appointed by BIADA, shall review the project documents developed by SI including requirements, design, installation, training and administration manuals, version control etc. Any issues/gaps identified in any of the above areas, shall be addressed to the complete satisfaction of BIADA.