

SHORT NOTICE INVITING FOR RFP

(Only through e-tendering system on website www.eproc2.bihar.gov.in)

Invitation of Proposals for Selection of Agency For Designing, Development, Implementation & Maintenance of Management Information System (MIS) for RCD, Bihar

Bihar Rajya Pul Nirman Nigam Ltd (BRPNNL), a Government of Bihar undertaking, invites Proposals for Selection of Agency For Designing, Development, Implementation & Maintenance of Management Information System (MIS) for RCD, Bihar

Sl. No.	Name of Project	EMD (in Rs. Lakh)	Cost of RFP Document (in Rs.)	Bid Processing Fee (Online Payment) (in Rs.)
1	2	3	4	5
	Proposals for Selection of Agency For Designing, Development, Implementation & Maintenance of Management Information System (MIS) for RCD, Bihar	4,00,000.00	10,000.00	5900.00

SCHEDULE:

1	Downloading of Bid Documents	From 17/06/2026(10:00 Hrs.) to 30-06-2026 15:00 Hrs.) (www.eproc2.bihar.gov.in)
2	Pre-Bid Meeting to be held at Conference Room, BRPNNL	22-06-2026 at 15:00 Hrs. (Conference Room, BRPNNL, Patna)
3	Last Date/ Time for Submission / Uploading of offer / Bid	02-07-2026 upto 15:00 Hrs. (www.eproc2.bihar.gov.in)
4	Last Date of Submission of Bank Draft, Bid Security and Hard Copies of document in original	04-07-2026 upto 15:00 Hrs.
5	Opening of Bid	04-07-2026 upto 15:30 Hrs. (www.eproc2.bihar.gov.in)
6	Validity of Bid	120 days

The Eligibility Criteria, detailed Scope of work etc. can be download from website :-
www.brpnml.bihar.gov.in & www.eproc2.bihar.gov.in

**Senior Quality Control Engineer
Quality Control Division
B.R.P.N.N.Ltd, Patna**

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Terms & Conditions:-

1. The Earnest Money shall also be acceptable in the form of Online Payment Receipt/ Unconditional Bank Guarantee (validity 45 days after bid validity period) of any Scheduled Bank which has Branch in Bihar and duly issued in favour of "Senior Quality Control Engineer, Quality Control Division, Bihar Rajya Pul Nirman Nigam Ltd." Earnest money and the Cost of Bid Documents shall be submitted in original in the office of the Senior Quality Control Engineer, Quality Control Division, Bihar Rajya Pul Nirman Nigam Ltd./ Dy. Chief Engineer, Work Circle-1, Bihar Rajya Pul Nirman Nigam Ltd. Patna, 7- Sardar Patel Marg, Patna. **upto 02-07-2026 upto 15:00 Hrs.** Otherwise bid will not be considered as responsive.
2. **Qualifying Criteria:-** Qualifying Requirements, Specification etc. will be as per rules & conditions, which along with detailed NIT can be seen on website www.eproc2.bihar.gov.in/ www.brpnpl.bihar.gov.in
3. Bid Processing Fees is mandatory to be paid through on line mode i.e. internet payment gateway (Credit/Debit Card) Net Banking, NEFT/RTGS.
4. **Validity of Bid:-** 120 days from last date of submission of Tender.
5. The Bihar Rajya Pul Nirman Nigam Ltd. reserves the right to accept or reject any or all proposals without assigning any reason thereof.
6. Corrigendum/ Addendum if any will be uploaded on the web site www.eproc2.bihar.gov.in as well as www.brpnpl.bihar.gov.in
7. No claim shall be entertained on account of disruption of internet services being used by bidders. Bidders are advised to upload their bids in advance to avoid last minute technical snag.
8. For clarification and further enquiry, if any, regarding e-tendering process and registration, the bidder may contact eproc 2.0 Help Desk Address: mjunction services limited RJ Complex, 2nd Floor, Canara Bank Campus, Khajpura, Ashiana Road, P.S. - Shastri Nagar, Patna 800 014, Bihar (Toll Free Number: 1800 572 6571) Visit our website: eproc2support@bihar.gov.in

Name of Contact Person :-

1. Sri. Khurshid Karim, S.Q.C.E.- Mob. No.- 8544402463
2. Sri. Chhavinath Kumar, P.E.- Mob. No.- 9297515552

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Glossary

Sr. No.	Abbreviation	Description
1	API	Application Programming Interface
2	BDS	Bid Data Sheet
3	BEC	Bid Evaluation Committee
4	BOQ	Bill of Quantities
5	RCD	Road Construction Department, Bihar
6	COS	Change of Scope
7	COTS	Commercial Off the Shelf Product
8	CRM	Customer Relationship Management
9	SDC	State Data Centre
10	DC	Data Centre
11	DPR	Detailed Project Report
12	DR	Disaster Recovery
13	EMD	Earnest Money Deposit
14	EOT	Extension of Time
15	FRD	Field Rating Documents
16	GCC	General Conditions of Contract
17	GEO TAGGING	Geographic Information System
18	GST	Goods and Service Tax
19	HOD	Head of the Department
20	HTTPS	Hypertext Transfer Protocol Secure
21	ICT	Information & Communication Technology
22	iOS	iPhone Operating System
23	IP	Intellectual Property
24	IPMP	Integrated Project Management Platform
25	ISO	International Organization of Standardization
26	IT	Information Technology
27	ITB	Instructions To Bidders
28	KPI	Key Performance Indicator
29	LAN	Local Area Network
30	LOA	Letter of Award
31	LOI	Letter of Intent
32	MIS	Management Information System
33	O&M	Operation and Maintenance
34	OEM	Original Equipment Manufacturer

Sr. No.	Abbreviation	Description
35	OWASP	Open Web Application Security Project
36	PAN	Permanent Account Number
37	PBG	Performance Bank Guarantee
38	PQC	Pre-Qualification Criteria
39	PSU	Public Sector Undertaking
40	QCBS	Quality cum Cost Based Solution
41	RBAC	Role Based Access Control
42	RFI	Request for Inspection
43	RFP	Request for Proposal
44	RPO	Recovery Point Objective
45	RTO	Recovery Time Objective
46	SAP	Systems Application & Products
47	SI	System Integrator
48	SLA	Service Level Agreement
49	SOW	Scope of Work
50	SRS	Software Requirement Specifications
51	SSL	Secure Socket Layer
52	STQC	Standardization Testing and Quality Certification
53	TAT	Turn Around Time
54	TLS	Transport Layer Security
55	TNA	Training Need Assessment
56	TQC	Technical Qualification Criteria
57	TTT	Train The Trainer
58	UAT	User Acceptance Testing
59	UI	User Interface
60	ULB	Urban Local Body
61	URL	Uniform Resource Locator
62	UX	User Experience

Part I – Project Requirements & GCC

Section I – Project Requirements

A. Background and Information Materials

1. About RCD

As a flagship works department, Road Construction Department, Government of Bihar plans, designs, constructs, improves, strengthens and maintains roads and bridges including flyovers, ROB's and elevated corridors. Roads are constructed, upgraded and maintained as a part of the road network system classified as National Highways, State Highways and Major District Roads.

RCD is dedicated to ensuring seamless connectivity, promoting economic growth, and enhancing the quality of life for the citizens of Bihar. Its mission includes:

- Developing high-quality roads and bridges to improve regional connectivity.
- Ensuring the timely completion of projects with transparency and efficiency.
- Facilitating public-private partnerships (PPP) to attract investment and expertise.
- Adopting innovative approaches for road safety, durability, and cost-effectiveness.

The vision of the Road Construction Department:

- To connect the State Capital with 2/4-lane Highways in all districts so that one can reach Patna within 5 hours from the farthest destination.
- 2-laning (7.00 m) of all single lane/intermediate lane State Highways.
- Widening to Intermediate Lane (5.50 m) of all single lane major District Roads.

Notable achievements include:

- Construction of Elevated Road Corridor from AIMMS to Digha at Patna.
- Development of expressways and bypass roads to decongest urban areas.
- Implementation of road safety measures including crash barriers, reflective signboards, and pedestrian crossings.
- Integration of modern construction techniques to reduce environmental impact.

2. Project Objective

As the quantum of work is growing towards providing road connectivity to all rural habitations, the task of project planning, implementation and monitoring physical and financial information system. Road development requires digital information system to effectively collect, manage and visualize road development works in the state.

RCD has envisaged a development & operationalization of an open-source information management system. The proposed Management Information System (MIS) will support planning, monitoring and visualization of the departmental schemes implementation from end-to-end. The department has an existing MIS, However, it has been felt that a more features in MIS is needed, in view of the current requirements. The New MIS once developed shall replace the existing MIS and the legacy data of the existing MIS shall be ported to the newly designed MIS to provide continuity.

3. High Level Requirements

- Platform Design and Development: Requirements gathering and development of a web-based and mobile-enabled platform.
- Module Integration: Incorporation of functional modules including Planning, Monitoring, Measurement Book, Contract Management, Geo Tagging, and O&M.

- **Data Migration:** Digitization and migration of historical project data.
- **Training and Capacity Building:** Conduct training sessions for RCD staff.
- **Support and Maintenance:** Post-deployment support, maintenance, and system updates for five years.
- **Compliance and Security:** Adherence to security protocols, ensuring data confidentiality and system integrity.

4. Terms of Reference

- a) **MIS Software Application Development:** Analysis of Existing MIS and Work flow, design, development, customization, configuration, and integration.
- b) **MIS Software Application Implementation:** Following defined reference architecture, acceptance criteria & metrics, IT standards.
- c) **SDC Services (Hosting):** Bidder must host entire Web and mobile Application in State Data Centre (SDC) Beltron, Bihar.
- d) **Operations and Maintenance:** Overall O&M activities including IT Helpdesk services for a period of 5 years.
- e) **Training and Capacity Building:** Training of users of RCD Head quarter as well as field Engineers.

5. Scope of Work

The Solution Provider shall be responsible for providing following scope of work:

1. Assessment of requirement of MIS including as-is-Assessment of the existing system.
2. Design and Development of Advanced version of MIS.
3. Operation And Maintenance for a period of 5years from GO Live Stage(24weeks from the date of commencement of the services)

The Solution Provider(SP) will be responsible for the comprehensive development and operational management of an Management Information System (MIS) for RCD . This will encompass initial requirement gathering, including the analysis of existing work flows and the establishment of standardized project structures with stage-wise KPIs for effective progress monitoring. The SP will design the MIS with cutting-edge User Interface (UI)/User Experience (UX) principles, ensuring that it is tailored to the specific needs of various stakeholders and includes a range of modules for project management, fund tracking, and reporting, among others. Post-development, the SP will conduct rigorous testing to ensure the solution's robustness before going live.

Over the Five-year operations and maintenance phase, the SP will ensure system reliability, regular submission of back up data in hard discs (hard discs will be provided by RCD), data safety and security, implement up dates, and provide continuous technical support. This will also include small enhancements of the existing modules as and when the department requires, all while adhering to latest and stringent cyber security and data privacy standards. The SP's team of experts will be expected to possess the necessary qualifications and experience to deliver a high-quality, sustainable solution that meets RCD's monitoring and operational needs.

The SP shall be responsible for execution of the following scope of work:

1.1 Requirement Gathering

- 1.1.1 Study of existing MIS including business work flows to effectively control the implementation of departmental schemes.
- 1.1.2 Input data, out come reports, measurement, monitoring and visualization requirements.
- 1.1.3 Preparation of a standardized project structure, scheme wise, for progress monitoring comprising of stage-wise KPIs.
- 1.1.4 Assistance in updating & monitoring the progress of projects through consultative work shops.
- 1.1.5 Stakeholder consultation on module prioritization for development & detailed breakdown of project work plan.

1.2 Design of Managment Information System(MIS)

- 1.2.1 Based on the gathered requirements and stakeholder consultation, the new layout and theme of the solution shall be designed considering the latest user experience (AI Model) trends.
- 1.2.2 Design of the dash board in terms of key modules, project information, KPIs, data fields, data visualizations etc. in consultation with the RCD core MIS team.
- 1.2.3 Design of various take holder specific pages as per user role and privilege.
- 1.2.4 Design of progress monitoring and update progress pages with data fields and parameters as per the scheme/project requirements.
- 1.2.5 Creation of visual blue print, design cases with UX considerations.
- 1.2.6 Workshops for stake holder consultation for discussion on solution design.

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1.3 Development of Management Information System(MIS)

- 1.3.1 The MIS shall be developed as per the finalized functional requirements based on consultation with the RCD core MIS team.
- 1.3.2 Before the advanced version goes live, the legacy data in the existing MIS shall have to be ported to the new version, to provide continuity.
- 1.3.3 The solution shall have the modules for creation of project forms with custom KPIs, project monitoring, project-scheme indicator mapping (physical and financial), fund management, allotment, release and expenditure of funds , approval & utilization monitoring, role-based dashboard & profile, third-party inspection & Action Taken Report (ATR) recording, custom report generation, access management, meeting scheduler, action tracking system & document management and etc.
- 1.3.4 The solution shall support creation/monitoring of projects based on scheme, Bridge type, length and location, project implementing agency etc.
- 1.3.5 The solution shall be utilized for planning & monitoring of projects & allow users to create & plan projects in the form of asset of activities, sub-tasks, tasks, and stages with defined time lines. The physical and financial progress shall be tracked on the activity level for each project against which the user shall be able to update progress, add remarks and upload supporting documents. Update history shall be recorded at activity level.
- 1.3.6 Development of customized dashboard with drill down functionality for different stakeholder level users. The dashboard shall be able to show information in the form of data points/info graphics on various key metrics of the scheme/ projects. The parameters to be monitored shall be finalized in consultation with the client. The MIS should have dynamic, colorful, attractive and easy to use pages and modules.
- 1.3.7 The solution shall allow user to view/download predefined reports by selecting the type of report and filtering through the desired data to be generated.
- 1.3.8 The solution shall have capability for stakeholder collaboration, through meeting scheduler, action tracking, chat & file sharing functionalities where users shall be able to create discussion forums, add participants, and share files (documents, presentations, datasheets, audio & video files) on various topics. It should provide space for all the stakeholders to do online, real time collaborative work.
- 1.3.9 Functionality of task/work allocation through an action tracking system shall be developed. The tasks created for project monitoring related works shall be linked to individual/multiple task or activity level action items.
- 1.3.10 The solution shall have a rule based alert system based on pre-defined triggers/ user actions. The alerts shall be viewed in notifications tab where the user shall be able to go through various alerts and logs. The option of filtering/sorting notifications shall also be there.

- 1.3.11 Dedicated module for recording observations of inspection and action taken by implementation agency.
- 1.3.12 The solution shall have role-based access with detailed user profile and defined privileges.
- 1.3.13 Activity log should be maintained for all user actions.
- 1.3.14 Ensure compliance to the latest and high standards for cyber security, data storage, data safety and security, privacy guidelines etc.

1.4 Infra structure for Hosting of the Application

- 1.4.1 RCD will provide the server and related infrastructure necessary for hosting the MIS application, including the test environment.
- 1.4.2 The pre-production and production environment will be provided by RCD at SDC, Beltron, Bihar for which the SP has to provide the required server sizing.
- 1.4.3 The development environment has to be provisioned by SP.
- 2.4.2 The Solution provider will be responsible for deploying and hosting the application on the server provided by RCD
- 1.4.4 The solution provider will assist RCD core team in completing the Application Security Audit. which shall be conducted through a CERT-IN /empaneled agency appointed by RCD .
- 1.4.5 The solution provider shall address and comply with any findings and recommendations arising from the audit. The cost for security audit shall be borne by RCD .
- 1.4.6 The Domain and SSL Certificate will be provided by RCD , and the SP shall provide necessary support for their integration and configuration.

1.5 Application Testing & Go-Live

- 1.5.1 All the modules and functionalities shall undergo testing during the course of development and prior to their launch.
- 1.5.2 Preparation of test cases and testing scenarios for various levels of testing.
- 1.5.3 Unit & function al testing shall be conducted for each developed module.
- 1.5.4 Integration & system testing shall be conducted prior to the launch of any module.
- 1.5.5 User acceptance testing shall be conducted once all the stipulated modules of the solution are developed.
- 1.5.6 As mentioned earlier in Para 1.3.2, the Go-Live shall be allowed only after the legacy data from the existing MIS shall be ported to the newly developed of MIS.

1.6 Capacity Building

- 1.6.1 Development of training programs for all the stake holders.
- 1.6.2 Organize training programs for BRPNL officials and staff and ensure that they are trained.

- 1.7 **Operations & Maintenance for 5years**
- 1.7.1 Any performance upgrade/ bug fixing of the platform shall be seamlessly incorporated into the system.
 - 1.7.2 Change request regarding data and functionality to ensure application & data integrity.
 - 1.7.3 Technical support for managing application.
 - 1.7.4 Maintenance activities & system check shall be performed to ensure smooth operations.
 - 1.7.5 Future modules providing ase in management of the program shall be advised to the client.

2 Hand Over & Take Over Activities

The scope of Hand over & Take over (HOTO) activities includes transition support from the existing application to the re-developed application, with migration of data from the legacy system. The existing vendor shall provide HOTO support for a period of two (2) months, for knowledge transfer, data migration support and know how of the existing system including all technical and functional documents. The major activities includes:

- Knowledge transfer by the existing vendor covering legacy application functionality, business workflows, custom logic, validations, system architecture, and integrations
- Handover by the existing vendor of available technical and functional documentation, including data base schema and data structures
- Data migration support by the existing vendor, including clarification of legacy data, support for data mapping, data extraction guidance, and assistance during mock and final migration validation.
- Coordination between the existing vendor and the new development team during the HOTO period for resolution of data- and system-related queries
- Completion of HOTO activities with formal hand over and acceptance

2. Management Information System Architecture and Requirements

Offline Synchronization Solution and Business Continuity

Considering the situation of the network, the proposed solution should allow for offline data access through mobile application and sync back to main database when connectivity is resumed. This would allow users to continue working even during network downtime.

Multilingual

The solution should be Unicode-based and should support hosting of bi-lingual data/forms (English & Hindi) and should enable data entry in multi-lingual formats by users in web pages.

Usability

The Advanced MIS Portal/application should be designed in a user-friendly, citizen-centric manner and as per the standards laid down in ISO 9241 and the best practices described in <http://www.usability.gov>. The usability requirements for the RCD Management Information System solution include user and task analysis, data collection and analysis, information architecture design, and iterative usability testing.

The portal pages should be easy to navigate, requiring a minimal number of user actions for availing information or services. The RCD Information System solution provider should engage usability design experts to ensure a pleasant user experience in terms of navigational comfort, look & feel, and design of web pages.

Enterprise Portal: The Enterprise Portal will provide a secure, unified access point in the form of a web-based user interface and will be designed to aggregate and personalize information through application-specific portals/web parts.

Application Modules: The various application modules along with its Functional Requirement Specification requires to be identified and developed as per the requirement of RCD.

Directory Services: These services will be used to register, authenticate, and manage users and their security privileges. These services will authenticate the Government users and determine user-specific privileges. LDAP (Light weight Directory Access Protocol) is an internet protocol that Government portal users will use to look up information from a server. User password validation will be done from LDAP. Authentication should be conducted using the standards-based LDAP meta-directory server. The user directory should provide a unified view of all user profiles. Directory services shall be able to define centralized authentication & authorization mechanisms for all network users.

Web Application Services: The Web Application Services will be a container to manage the presentation and application logic. It will provide transactional integrity, scalability, and availability services. In addition, it manages the session, requests, and responses to and from its clients and resources.

Indexing & Search Services: This tool would be used for indexing and searching all the repositories of the knowledge repository maintained across the portal infrastructure.

MIS Reporting:

This reporting feature of the portal is to be designed to allow authorized users to have a customized view of the entire list of reports they use or wish to use. Required security will have to be applied to this module, providing restricted access based on different categories of users within the portal ecosystem. This module will be further linked to the personalized dash board, where the same links to these reports

can be displayed in smaller portals, so that users do not always have to search for their frequently used reports from the Reports module. They can add it to their own dashboard for ease of use. All reports made available need to be controlled through the 'Admin' module for variable access depending upon the nature and status of the user. The access control list of the reporting servers needs to be mapped and configured with the admin access control policies. The following are the kinds of reports proposed as part of the portal, but not limited to.

All/Fixed Reports:

This subsection within the Reports module will have a list of all fixed reports as hyperlinks, which will display there ports based on predefined logic/ queries on the screen. It will also provide options to export the report to different formats (PDF, HTML, Word, Excel, or CSV), print, and/or save the reports. These may be one-click fixed reports or may be dynamic, allowing changes to certain parameters (such as date or period range, location, etc.) through rop down field in the predefined query, and then executing the command to prepare the report. Users will also have the option to mark the selections as 'Default', so that every sub sequent time the reports are generated, they will be produced with a single click based on the selected parameters, without having to change every time.

Custom Reports/ Adhoc Reports

AUI interface will be provided to specific users, offering them a view of the solution data base and the ability to generate custom reports as and when required. Users will be able to select any field, table, or column (as per the data based e-sign) using a drag-and-drop feature. The UI will assisting creating simple queries and executing them by all owing users to select fields/tables from the display and enter certain basic parameters. Filter criteria and other user-friendly features will also be provided for ease of use. The report will be displayed on the screen, and users will have the option to export it to different formats, as mentioned above. The key features of this functionality will be as follows:

This functionality will be permission restricted. Based on the type of rights/permissions granted to each user, they will have the ability to view the tables of the solution database through the User interface.

The Report Builder tool may be used to implement this functionality, allowing users to easily create and execute queries by entering only the basic parameters. However, the decision of the Department in this matter will be final and binding on all parties concerned.

My Reports

This subsection will have a list of reports as book marks that are frequently used by internal users, serving as a personalized section displaying only the preferred reports for any user. These frequently used reports will be a sub set of the All/ Fixed reports and will be book marked to appear on their personalized dashboard, customized by the individual users.

All the required reports, by each of the stake holders/ users, must be immediately generated. The solution architecture and the database design must enable fast retrieval of data, supported by an optimized solution interface.

SQMS:

Effective monitoring of the programme is critical. The advanced version of MIS to be developed will serve as the primary mechanism for monitoring the departmental schemes (Bridge). Officials managing the various

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Aspects of the programme will be required to submit all relevant data related to Bridge details and transactions in the corresponding module of the Online Monitoring System.

3 Development of Online State Quality Monitoring System Software:

The SQMS shall consist of the following main modules:

a. Master Data Module:

- i. Master data Module:-Master data includes the following:
 - i. Are a master which contains data regarding the villages/ Habitations and details of facilities available at habitation level (To be entered at PIU level).
 - ii. Bridge master which includes details regarding the name of the road, surface type etc.(To be entered at PIU level).
- ii. MP/ MLA Constituency (To be entered at PIU level).
- iii. Contract or master details(To be entered at PIU level).
- iv. Execution & Monitoring Module
- v. Entry of progress against each work in physical and financial terms(to be entered at PIU level).
- vi. Completion of road works (to be entered at PIU level).

b. Maintenance Module:-

- i. Physical and financial data regarding 5 years contract-based maintenance (to be entered by PIU level).
- ii. Quality Monitoring—
 - i. Data Regarding QC inspection carried out by different tiers is to be entered. The monthly schedule of inspection shall also be entered on website.

c. New MIS

The proposed new MIS will have to be designed to build a powerful relation al and analytical system within-built Geo tagging and reporting platforms. It will be a strong yet flexible location referencing system that will ensure that all historical data will be correctly referenced including all historical changes in the Bridge network. The Additional Core modules shall include following :

- i. Bridge Information System—
 - Stores bridge-related information such as inventory and condition
 - Tracks bridge maintenance history
 - Includes cost details related to bridge maintenance and repairs
 - Offers a complete bridge inventory management system
- ii. Road Safety Information System—

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- Display attribute data of the road safety parameters on the GEO TAGGING Map.
- Preparation of reports related to
 - Cap turing Geo-tagging of accident locations.
 - Identification of accident-prone areas as (black spots).
 - Basic map view with accident density visualization.

iii. Pavement Management System—

- Displays pavement data on GEO TAGGING maps
- Helps identify areas needing immediate repairs
- Monitors pavement wear and tear
- Integrates pavement inspection data for improved decision-making
- Uses GEO TAGGING mapping for accurate pavement assessments
- Supports asset management and prioritization

iv. Annual Maintenance Tool

- Displays annual maintenance data on GEO TAGGING maps
- Tracks scheduled maintenance activities
- Helps plan and schedule road and infrastructure repairs
- Assists in managing and tracking resources for maintenance
- Provides real-time status updates on ongoing maintenance
- Enables data-driven decisions for road upkeep
- Displays maintenance history for future reference

v. Work force Management Including Service Records—

- Tracks work force data and service records
- Displays work force information on GEO TAGGING maps
- Monitor employee performance and historical service data
- Facilitates assignment of tasks and tracks completion
- Provides work force reports for departmental decision-making
- Helps manage resource allocation across various projects

vi. Project Planning and Proposal Review—

- Displays project planning data on GEO TAGGING maps
- Tracks proposal review status and approvals
- Allows for detailed project planning and visualization
- Enables real-time updates on project proposals.
- Integrates data for better project forecasting.
- Helps prioritize projects based on urgency and need
- Facilitates collaborative project planning among stakeholders
- Provides an overview of project stages and milestones

vii. Survey and Digital Asset Creation.—

- Displays survey data and digital assets on geo-tagging maps
- Enables easy creation and management of digital assets
- Integrates survey data for informed decision-making
- Tracks changes in digital assets over time
- Helps in asset management and future upgrades.
- Allows the integration of historical survey data for better analysis.
- Supports real-time updates on asset creation
- Facilitates the storage and management of all survey-related data

viii. Communication Management System

- Design and implement configurable masters for letter types (such as DO letters, court matters, etc.), address directory, signatories, departmental sections, action timelines, and file indexing with quick search and random access to records.
- Provides user account creation with unique user IDs and passwords, role-based access control, and permission levels (view, add, and manage) to ensure secure and controlled access to information.

- Enables configuration and management of office hierarchy, locations, and subordinate offices, including addition, modification, and deletion, with appropriate access control across organizational levels.
- Implements secure login features, including password management (change/forgot password), and automated notifications via email, SMS, and portal alerts with configurable schedules and reminders.
- Facilitates a centralized diary for capturing incoming and outgoing correspondence with complete metadata (letter type, category, number, date, subject, sender/recipient, status, enclosures, and mode of receipt), along with scanned document upload, electronic forwarding, commenting, and end-to-end tracking.
- Provides internal communication features enabling one-to-one and group messaging among officials, along with document sharing and real-time alerts for faster coordination and official communication.

- ix. All required shape file along with attribute data will be provided by RCD for publishing in the GEO TAGGING map.
- x. All data integration activities shall be carried out subject to the availability, accessibility, and readiness of the existing systems.
- xi. Fund Management : Enables MIS-based fund allotment and financial monitoring for bridge projects, including budget allocation, fund release details, expenditure tracking, utilization monitoring, balance fund status, head-wise/scheme-wise allotment, and generation of financial reports for effective decision-making.

d. Bridge Inventory & Condition Management

Core inventory and condition data store

S.No	Functional Requirement	Priority	Compliance (Full / Partial / No)
1	Maintain a structured, searchable digital inventory of all bridges including unique bridge ID, name, location, route, chainage, administrative district, type, span, material, year of construction, and carrying capacity.	Mandatory	
2	Record and update structural condition ratings per bridge element (deck, girder, pier, abutment, bearing, railing, foundation) on a standardized condition index scale (0-9 or equivalent).	Mandatory	
3	Display all bridge locations as geo-tagged points on an integrated GIS map with attribute data pop-ups and layer-based filtering.	Mandatory	
4	Maintain complete change history for all inventory attributes including date of change, user, and reason for modification.	Mandatory	
5	Support classification of bridges by structural type, traffic loading class, waterway crossing category, and NHS or equivalent priority tier.	Mandatory	
6	Allow attachment of scanned documents, drawings, and certificates to individual bridge records.	Mandatory	
7	Support bulk import of legacy bridge inventory data via standardized CSV/Excel templates.	Mandatory	

Lifecycle maintenance and expenditure records

S.No	Functional Requirement	Priority	Compliance (Full / Partial / No)
1	Record all maintenance events against each bridge including maintenance type, date, description of work, responsible agency/contractor, and outcome.	Mandatory	
2	Capture cost details against each maintenance event broken	Mandatory	

S.No	Functional Requirement	Priority	Compliance (Full / Partial / No)
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down by repair category (routine, periodic, emergency, major rehabilitation).

- | | | |
|---|---|------------------|
| 3 | Track contractor-wise and agency-wise expenditure with provision to compare sanctioned budget versus actual expenditure. | Mandatory |
| 4 | Provide alerts and notifications for upcoming scheduled maintenance activities based on maintenance history and inspection recommendations. | Mandatory |
| 5 | Generate maintenance cost trend charts by bridge, district, or year for decision-making and budget planning. | Mandatory |
| 6 | Maintain a complete audit log of all maintenance records with user-level accountability. | Mandatory |

Inspection scheduling, execution, and records

S.No	Functional Requirement	Priority	Compliance (Full / Partial / No)
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|---|---|------------------|
| 1 | Support multiple inspection types: routine, periodic, special, emergency, and underwater inspection. | Mandatory |
| 2 | Enable inspection scheduling with automated reminders to assigned inspectors and supervisors. | Mandatory |
| 3 | Provide a mobile application or browser-based responsive interface for field data capture during inspections (offline-capable with sync on connectivity). | Mandatory |
| 4 | Allow capture of defect location, type, extent, severity, and recommended action per bridge element in the field. | Mandatory |
| 5 | Track inspection status (scheduled, in-progress, completed, approved) with timestamps and responsible officer details. | Mandatory |
| 6 | Enable digital sign-off of completed inspection reports by authorized supervisory officers. | Mandatory |
| 7 | Maintain complete inspection history per bridge with linkages to resulting maintenance actions and costs. | Mandatory |

AI-Based Image Analysis Engine (Inspection & Progress Reporting)

The system shall incorporate an Artificial Intelligence (AI) / Machine Learning (ML) based image reading and analysis engine to automatically process photographs captured during bridge inspections and construction or maintenance progress visits. This module is mandatory and shall function as an integrated component of the MIS — not a standalone tool.

AI-Based Image Analysis — Inspection

S.No	Functional Requirement	Priority	Compliance (Full / Partial / No)
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|---|--|---------------------|
| 1 | Accept upload of one or more field photographs per inspection event through the mobile application and the web portal. | AI Mandatory |
| 2 | Automatically identify the bridge element or component depicted in each uploaded photograph (e.g., deck, pier cap, abutment, bearing pad, expansion joint, railing, soffit). | AI Mandatory |
| 3 | Detect and classify defect types present in photographs including but not limited to: cracks (longitudinal, transverse, diagonal, map/pattern), spelling, delimitation, corrosion/rusting of steel, scour/undermining, settlement, efflorescence, and moisture staining. | AI Mandatory |
| 4 | Assess and output the severity of each detected defect as Minor, Moderate, or Critical based on visual characteristics such as crack width, area of spelling, depth of corrosion, or | AI Mandatory |

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S.No	Functional Requirement	Priority	Compliance (Full / Partial / No)
	extent of delimitation. All defects/ distress will be based on IRC SP-35		
5	Suggest a condition rating score for the depicted element on the standardized scale based on AI analysis; this suggestion shall be reviewable and overridable by the inspector.	AI Mandatory	
6	Generate annotated output images with bounding boxes or polygon overlays marking detected defect locations, defect type labels, and severity classification.	AI Mandatory	
7	Auto-populate relevant fields of the inspection data entry form (element, defect type, severity, recommended action) based on AI analysis results to reduce manual entry effort.	AI Mandatory	
8	Trigger an automated alert notification via SMS and email to the designated supervisory officer when a Critical defect is detected in any photograph.	AI Mandatory	
9	Maintain a full audit log of all AI analysis outputs including confidence scores, user confirmations or overrides, and final accepted values for traceability and model improvement.	AI Mandatory	
10	Allow the Inspector to confirm, partially accept, or completely override any AI-generated output before final submission of the inspection record.	AI Mandatory	

AI-Based Image Analysis — Progress Reporting

S.No	Functional Requirement	Priority	Compliance (Full / Partial / No)
1	Accept upload of site photographs from construction or maintenance progress visits through the mobile application and web portal, tagged to the corresponding project/work order.	AI Mandatory	
2	Analyse uploaded images to estimate percentage completion of individual work items (e.g., concrete casting, formwork erection, deck laying, painting, waterproofing) based on visual cues.	AI Mandatory	
3	Compare before-and-after or sequential visit photographs to quantify measurable changes in physical progress across inspection periods.	AI Mandatory	
4	Detect the presence or absence of safety compliance indicators in site photographs including PPE usage by workers, barricading of work zones, signage, and scaffolding integrity.	AI Mandatory	
5	Automatically generate a structured progress narrative (in plain English) describing observed site conditions, estimated completion percentage, and identified safety concerns, based on the AI image analysis.	AI Mandatory	
6	Embed supporting annotated photographs within the generated progress report document for export as a PDF report suitable for submission to senior officers.	AI Mandatory	
7	Allow the Site Engineer or authorised officer to review, edit, and approve the AI-generated progress narrative before formal submission.	AI Mandatory	
8	Maintain complete traceability of AI-generated progress assessments against the corresponding project, work order, date, and uploaded image set.	AI Mandatory	

Reporting

S.No	Functional Requirement	Priority	Compliance (Full / Partial / No)
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S.No	Functional Requirement	Priority	Compliance (Full / Partial / No)
1	Bridge Inventory Report — complete or filtered list with all inventory attributes.	Mandatory	
2	Bridge Condition Summary Report — condition index distribution by bridge, district, route, or type.	Mandatory	
3	Inspection Compliance Report — list of bridges overdue for scheduled inspection with days overdue.	Mandatory	
4	Maintenance Cost Report — expenditure by bridge, year, maintenance category, and contractor.	Mandatory	
5	AI Defect Detection Report — summary of AI-identified defects by severity across selected bridges or period.	AI Mandatory	
6	AI Progress Assessment Report — consolidated progress status with AI-generated narratives and images per project.	AI Mandatory	
7	Critical Defect Alert Log — list of all critical defects flagged by AI with bridge ID, date, defect type, and follow-up action status.	AI Mandatory	
8	Maintenance Prioritization List — ranked list of bridges requiring intervention based on condition index and inspection findings.	Mandatory	
9	All reports shall be exportable in PDF and MS Excel formats.	Mandatory	

e. **Mobile Application**

With rapidly increasing mobile penetration, continuous improvements in bandwidth, and the growing demand for accessibility and citizen convenience, it is envisioned that more services will be delivered through mobile devices. The System Integrator (SI) must develop robust interfaces, technologies, and applications for mobile platforms. To maximize citizen convenience and drive business process improvements, the SI must continuously innovate, upgrade, and adopt emerging technologies. The mobile application requirements are as follows:

- i. **Technology:** The mobile application must be based on the latest technology. It should be structured as a multi-layered application, consisting of user experience, business, and data layers.
- ii. **Layers:** These layers are the same as described in previous sections. The mobile application should be designed in such a way that it addresses the following key issues:
 1. **Authentication and Authorization:** Handles occasional connection failures during authentication.
 2. **Caching:** Caches non-essential data on devices with limited resources.
 3. **Communication:** Protecting sensitive data during transmission over various carriers.
 4. **Data Access:** Implementing data access mechanisms that work with intermittent connectivity.
- iii. **Integration:** The proposed mobile applications should be integrated with the main application. There should be a facility to push and pull information using SMS services.
- iv. **Mobile Application Management:**
 1. **Enterprise App Store:** The system should provide an enterprise App Store hosting various apps, including the solution app, and supporting apps built using any mobile app technology.
 2. **App Development and Delivery:** The system should support app development and delivery for both smart phones and tablets, along with licensing and configuration.
 3. **Device Activation and Provisioning:** Features for device activation and

- provisioning should be supported.
4. **Version Tracking and Updates:** The system should support version tracking and centralized updates across devices remotely. It should ensure app deployment and enforce regular updates.
 5. **App Security:** The system should provide application security features, enabling remote administrators to manage users, enforce data encryption, handle backups, and ensure compliance.
 6. **Role-Based Access Control:** It should support role-based access control.
 7. **Event Tracking:** The system should capture and track all events at the device and console level, with visibility through remote administrative consoles..
 8. **Mobile Device Management:** Solutions with integrated Mobile Device Management (MDM) functionality would be preferred.
 9. **Single Sign-On:** The system should support single sign-on
 10. **Mobile Threat Prevention and Recovery:** The system should come with mobile threat prevention and recovery capabilities.
 11. **Digital Signature Authentication:** The system should support authentication using digital signatures.
 12. **Secure App Connectivity:** The system should provide facilities for secure app connectivity, ensuring encrypted connections for apps.
 13. **File Upload and Download:** The system should have the facility to download and upload files, including forms

f. **Training Services**

- i. The vendor should be responsible for providing one-time training at a single location to all the staff who are associated with MIS.
- ii. Training must be conducted in batches, with each batch consisting of approximately 10 to 12 people.
- iii. Each batch will receive approximately 3 to 5 hours of training, covering all relevant and critical features of the software, the processes involved in IT infrastructure upgrades.
- iv. **Local Infrastructure for Training:** The required local infrastructure for training, including space, computers, internet connection, and projector, will be provided by the RCD (Responsible Agency/Department).
- v. **Travel and Accommodation:** All travelling, boarding, and lodging costs for the faculty will be borne by the RCD as per the quoted price and must be included in the financial bid of this RFP.

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7. Supply, Installation, Configuration & Customization

Key components:

- Access Layer: Platform hosted centrally at SDC location, accessed by all stakeholders.
- Web Browser: Access over Internet through Web Browsers.
- Email/SMS: Alerts, intimations, and automated messages to registered email and mobile numbers.
- Portal: Single integrated user interface for all stakeholders with workflow support, HTTPS/SSL, role-based access, and document management.
- Dashboard, Reporting & Analytics: Role-based dashboards with drill-down reports, MIS reports, and custom ad-hoc reporting.

8. Data Integration Services

API based integration with legacy schemes including with multiple departments. The solution should integrate data from various sources within the MIS, as well as external systems and devices.

a) Mobile Application

Development of Android and iOS based mobile application. The MIS shall be accessed through Web Portal and Mobile App, with all functionality available via mobile.

b) Application Testing

Type of Testing	Responsibility	Scope of Work
System Testing	Selected Bidder	Prepare and maintain test plans and test cases.
Integration Testing	Selected Bidder	Prepare and share Integration test plans and test cases.
Performance and Load Testing	Selected Bidder	Conduct performance and load testing in production/production like setup.
Security Audit	Selected Bidder (via CERT-IN empanelled agency)	Compliance of security audit set of rules.
User Acceptance Testing	RCD	Selected Bidder prepares UAT test cases; UAT performed by RCD.

c) Go-Live

1. Prepare and agree detailed plan for Go-Live.
2. Define and agree criteria for Go-Live and timelines.
3. Submit signed-off UAT report ensuring all issues are resolved prior to Go-Live.
4. Ensure Go-Live criteria are met and obtain approval from RCD team.

d) Technical Documentation

The Selected Bidder will provide detailed final system documentation including User Manuals incorporating details of all menus and functionality.

e) Hosting of Application

5. Host entire Web and mobile Application in State Data Centre (SDC) at Beltron Bhawan and DR.
6. Provide SSL/wildcard SSL at hosting in SDC.
7. Compose and implement a data recovery policy in SDC.

f) Training & Capacity Building

The selected bidder will provide training (classroom and virtual) based on the training plan. Up to 10 trainings prior to go-live and one training each quarter going forward.

g) Operations & Maintenance

8. Application monitoring and Compliance to Service Level Agreements
9. Application support including modifications and integration with future systems
10. Bugs/Fixes Management
11. Software Change and Version Control
12. Maintenance of Configuration and System Documentation
13. Deployment of project manager, dedicated developers and business analyst post go-live at RCD office

9. Technical Requirements

The high-level functional requirements of the MIS solution:

14. The solution shall capture the total workflow of the department.
15. The solution shall have total lifecycle of the project and integrate various process and formats.
16. The solution shall have hierarchy for necessary management controls and approvals.
17. The solution shall have mapping elements to monitor manpower deployment.
18. The solution shall generate alert through emails for all deviations.
19. The solution shall have dashboard for HoD's/Project Managers and senior management.

10. Functional Requirements of MIS

S.No	Module Name	Description
1	Home	Main landing page of the system showing key information, navigation options, quick links, notifications, and summary highlights for users.
2	User Menu and Profile	Allows users to view and manage their profile details, change password, update contact information, and access role-based menu options.
3	Master Forms	Provides master data management for departments, divisions, districts, blocks, contractors, road categories, bridge types, schemes, financial years, and other reference data required for the system.
4	Entry Forms	Enables entry of road and bridge details from administrative approval, agreement details, physical progress, financial progress, milestone entry, PERT chart, and related project execution data.
5	Dashboard	Provides widget-based monitoring of physical progress, financial progress, quality status, milestone status, fund allotment, road and bridge progress, and overall project performance.
6	Observations	Allows officials and inspection teams to record observations, remarks, site issues, quality concerns, compliance status, and follow-up actions related to road and bridge works.
7	Contractor registration	Enables registration of contractors with details such as firm name, contact details, license information, GST/PAN, bank details, work experience, and document uploads.
8	Contractor Dashboard	Provides contractors with a personalized dashboard to view assigned works, agreement details, progress status, pending actions, payment status, observations, and compliance requirements.
9	MIS Reports	Generates Management Information System reports including project status, physical and financial progress, district-wise reports, contractor-wise reports, scheme-wise reports, fund utilization, and performance analytics.
10	Black List	Maintains records of blacklisted contractors, agencies, or firms with reasons, order details, effective dates, status, and supporting documents.
11	Mobile Apps	Provides mobile application support for field-based physical and financial progress entry, quality monitoring, geo-tagged photographs, routine maintenance inspection, and real-time reporting from site locations.

12	Quality Lab Test Module	Manages quality testing activities including sample collection, lab test entry, test parameters, results, approvals, quality compliance status, and test report generation.
13	FDR Module	Manages Full Depth Reclamation related project data, technical details, execution progress, quality checks, material usage, and monitoring reports.
14	User Registration	Allows creation and management of system users with role-based access, department/division mapping, login credentials, approval workflow, and user status control.
15	Lab Reports	Provides generation and viewing of laboratory test reports, quality inspection reports, material testing reports, compliance reports, and downloadable report formats.
16	Fund Allotment	Enables MIS-based fund allotment for roads and bridges, including budget allocation, release details, utilization tracking, balance monitoring, and financial reporting.
17	DPR Proposal Mobile App	Provides mobile application functionality for preparation and submission of DPR proposals, including site data collection, geo-tagged photographs, basic project details, and proposal tracking.
18	DPR	Manages Detailed Project Report data including project scope, estimates, technical specifications, drawings, approvals, proposal status, and related documents.

11. Manpower Requirements

Sr.	Description	No.	Minimum Qualification and Experience
1	Bridge Engineer-Team Leader (Civil)	1	<p>B.E./B.Tech in Civil Engineering.</p> <p>Experience: 9+ years of experience in bridge/road construction, supervision, maintenance, quality control, and project management. Knowledge of bridge design, RCC/PSC structures, foundation works, bearings, expansion joints, approach roads, quality testing, and relevant IRC/MORTH/IS codes.</p>
2	Bridge Asst. Engineer (Civil)	1	<p>Diploma/B.E./B.Tech in Civil Engineering from a recognized institution. Minimum 3 + years of experience in civil construction, road/bridge works, supervision, quality control, and project monitoring. Basic knowledge of RCC/PSC structures, foundations, bridge components, approach roads, drainage, quality testing, IRC/MORTH/IS specifications, and construction safety.</p>
3	Team Leader Cum Solution Architect (IT)	1	<p>B.E./B.Tech/MCA minimum 7 years experience as Project Manager handling IT/ITES projects.</p> <p>Should have hands of experience for the initiation, Planning, execution, transition, implementation, commissioning while managing scope, time, risk etc. service delivery projects in IT sector.</p> <p>Experience of handling projects in Govt. department/ PSU would be added advantage.</p> <p>Should have implemented and executed at least 1 project for end-to-end digital integration.</p>
4	Software Engineer	3	<p>B.E./B.Tech/MCA or equivalent qualification in IT/Computer Science from a recognized university/institution.</p> <p>Experience: Minimum 5+ years of experience in software development and handling integration across different</p>

Sr.	Description	No.	Minimum Qualification and Experience
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software platforms/systems. The candidate should have experience in API integration, database management, application development, testing, deployment, and support. Knowledge of web-based MIS systems, workflow applications, reporting modules, and government IT projects shall be preferred.

5 MIS Business Analytics Expert 1

B.E./B.Tech/MCA/BCA or equivalent qualification in IT/Computer Science/Data Analytics from a recognized university/institution. **Experience:** Minimum **3+ years** of experience as Data Analyst/MIS Analyst. The candidate should have experience in dashboard development, data visualization, MIS reporting, data analysis, KPI monitoring, database querying, and preparation of analytical reports. Experience in government MIS/project monitoring dashboards shall be preferred.

Web Developer 2

B.E./B.Tech/MCA/BCA or equivalent qualification in IT/Computer Science from a recognized university/institution. **Experience:** Minimum **3+ years** of experience in web application development. The candidate should have experience in front-end and back-end development, responsive UI design, database connectivity, , testing, and government web portals shall be preferred.

Mobile Application Developers 1

B.E./B.Tech/MCA/BCA or equivalent qualification in IT/Computer Science from a recognized university/institution. **Experience:** Minimum **3+ years** of experience in mobile application development. The candidate should have experience in mobile app design, development, API integration, GPS/geo-tagging, photo upload, offline data capture, push notifications, testing, deployment, and maintenance. Experience in field inspection, project monitoring, quality monitoring, and MIS-linked mobile applications shall be preferred.

Technical Support Expert 2

Graduate/BSC IT/B.E./B.Tech/BCA/Diploma from a recognized institution. **Experience:** Minimum **2+ years** of experience in technical support, helpdesk support, user support, system troubleshooting, application support, and issue resolution. The candidate should have knowledge of user training, remote support, data entry support, MIS application support, coordination with development teams, and preparation of support reports. Experience in government IT projects/call centre/helpdesk operations shall be preferred.

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12. Hardware Requirements

Laptop/Printer Requirement for Team

Sr.	Item	Purpose / User Group	Qty
1	Laptop	MIS Team at Head Office	12
2	Laser Printer All-in-One	For MIS Team at Head Office	2

Minimum Laptop Specification

Sr.	Particulars	Minimum Specification
1	CPU	5th Gen or above Intel Core i5 or higher configuration
2	Chipset	Intel
3	Memory	Minimum 16 GB or higher
4	SSD	1 TB
5	Display	15-inch LED or more
6	Keyboard and Mouse	Keyboard and mouse
7	Ports	4 USB ports, with at least 2 USB 3.0 ports
8	Backup	Minimum 4 hours
9	Network	Gigabit Ethernet card with support for remote wake
10	Operating System	Windows 10 or higher
11	Security	Power-on password and Administrator password via BIOS
12	Warranty Support	3 years onsite warranty by OEM

Minimum Printer Specification

Sr.	Particulars	Minimum Specification
1	Print Technology	Laser
2	Duty Cycle	10,000 pages or more
3	Print Quality Black	Effective output 600 × 600 dpi
4	Display	None
5	Connectivity	Hi-Speed USB 2.0 and Network
6	Paper Handling Output	150-sheet output
7	Paper Size	A4 / Legal
8	Energy Efficiency	ENERGY STAR 8 qualified
9	Print Speed	20-25 ppm or more
10	Both Side Printing	Yes
11	Processor	266 MHz or above
12	Memory	16 MB or above
13	Scan, Copy	All in one

13. Service Level Agreement

a) Penalty for delay in project execution

For any delay in the go-live, Department will charge penalty @0.25% of the corresponding milestone value per week or part thereof, subject to a maximum of 10% of the project CAPEX value. The Department reserves the right to terminate the contract if the penalty reaches 10%.

(i) SLA for Software Support

Sr.	Parameter	Resolution Time	Penalty Amount
1	Critical	24 hours	Rs. 500/- per hour beyond 24 hours; Rs. 1000/- per hour beyond 72 hours
2	Non-Critical	5 working days	Rs. 500/- per day beyond 5 days; Rs. 1000/- per day beyond 7 days

(ii) SLA for O&M

Sr.	Parameter	Service Level	Penalty Amount
1	Uptime	>99%	For uptime below 99%, 1% of the opex for respective month per additional % of downtime.

b) Confidentiality

The Service Provider shall not disclose any proprietary or confidential information during the term of this Contract Agreement and within three years after its expiration or termination, without prior written consent of RCD.

14. Payment Terms

PROJECTTIMELINES&PAYMENT TERMS:

Sl. No.	Milestone	Deliverables	Timeline	Payment Schedule
1	Project Initiation	Signing of Contract	T	—
2	Requirement Analysis	Requirement study and Business Process Re-engineering for best-fit solution; submission of SRS document	T + 4 weeks	20% of CAPEX
3	Project Design	Prototype design, database design of the Advance MIS System, and submission of design documents	T + 8 weeks	10 % of CAPEX
4	Development, Testing & UAT	Development of the Advance MIS System; unit testing; functional testing; system integration testing; submission of test reports; user acceptance testing; submission of compliance/UAT report; UAT sign-off	T + 22 weeks	40% of CAPEX
5	Go-Live	Deployment in production environment	T + 24 weeks	30% of CAPEX
6	Training	User training sessions	Throughout the project cycle	Included in CAPEX/OPEX as applicable
7	Operation & Maintenance	Periodic maintenance support; bug/issue resolution; onsite resource deployment; submission of monthly maintenance report	5 years from Go-Live	OPEX amount shall be divided equally and paid monthly at the end of each month, based on monthly invoices raised by the service provider

SHORT NOTICE INVITING FOR RFP

(Only through e-tendering system on website www.eproc2.bihar.gov.in)

Invitation of Proposals for Selection of Agency For Designing, Development, Implementation & Maintenance of Management Information System (MIS) for RCD, Bihar

Bihar Rajya Pul Nirman Nigam Ltd (BRPNNL), a Government of Bihar undertaking, invites Proposals for Selection of Agency For Designing, Development, Implementation & Maintenance of Management Information System (MIS) for RCD, Bihar

Sl. No.	Name of Project	EMD (in Rs. Lakh)	Cost of RFP Document (in Rs.)	Bid Processing Fee (Online Payment) (in Rs.)
1	2	3	4	5
	Proposals for Selection of Agency For Designing, Development, Implementation & Maintenance of Management Information System (MIS) for RCD, Bihar	4,00,000.00	10,000.00	5900.00

SCHEDULE:

1	Downloading of Bid Documents	From 17/06/2026(10:00 Hrs.) to 30-06-2026 15:00 Hrs.) (www.eproc2.bihar.gov.in)
2	Pre-Bid Meeting to be held at Conference Room, BRPNNL	22-06-2026 at 15:00 Hrs. (Conference Room, BRPNNL, Patna)
3	Last Date/ Time for Submission / Uploading of offer / Bid	02-07-2026 upto 15:00 Hrs. (www.eproc2.bihar.gov.in)
4	Last Date of Submission of Bank Draft, Bid Security and Hard Copies of document in original	04-07-2026 upto 15:00 Hrs.
5	Opening of Bid	04-07-2026 upto 15:30 Hrs. (www.eproc2.bihar.gov.in)
6	Validity of Bid	120 days

The Eligibility Criteria, detailed Scope of work etc. can be download from website :- www.brpnnl.bihar.gov.in & www.eproc2.bihar.gov.in

**Senior Quality Control Engineer
Quality Control Division
B.R.P.N.N.Ltd, Patna**

Section III – Evaluation and Qualification Criteria

1. Evaluation of Prequalification

S. No.	Basic requirement	Specific requirements	Documents required
1	Legal Entity	Should be Company registered under Companies Act, 1956 or a partnership firm registered under LLP Act, 2008 Should have been operating for the last Ten years	Certificates of incorporation
2	Sales turnover	Annual sales turnover of the last three financial years 2022-23, 2023-24 & 2024-25 should be at least INR 20 Crores. From IT/ITES Services.	Extracts from the audited balance sheet and profit & loss; OR Certificate from the statutory Auditor
3	Technical capability	Systems implementation agency must have successfully completed at least the following numbers of ERP systems /Software development, Implementation and support engagement(s) in any Govt (Central / Indian State) or PSUs of value specified herein :- One project of similar nature not less than INR 4 Crore OR- Two projects of similar nature not less than INR 3 Crore OR- Three projects of similar nature not less than INR 2Crore “Similar nature” will mean large web based application with MIS, work flow management, project management modules with or without provision of servers and network in Engineering Department.	Work Orders/ Contracts/ Agreements / Scope of Work should be uploaded.
4	Certifications	The bidder should have a valid CMMI Level 3 certificate or above	Copy of certificate

NOTE: Joint Venture, Sub-Contracting, and Consortium are not allowed.

Technical Qualification Criteria

Criteria	Basis for Evaluation	Max Marks	Supporting Documents
Annual sales turnover of the last three financial years 2022-23, 2023-24 & 2024-25, should be at least INR 20 Crores. From IT/ITES Services.	>= 25 Crores: 15 marks <=25 and >=20 Crores: 10 marks	15	Extracts from the audited Balance sheet and Profit & Loss; OR Certificate from the statutory auditor
Agency must have successfully completed at Software development, Implementation and support engagement(s) in any Govt (Central and/or Indian State) or PSUs.	>= 3 projects : 20 marks =2 projects : 15 marks =1 project : 10 mark	20	Work Orders/ Contracts/ Agreements/ Scope of Work should be uploaded.
Past Experience of working in development project including information Technology in Engineering Department (Central and/or Indian State Govt.)	2 Project software development in Engineering Department =10 1 Project software development in Engineering Department and allied sector =5	10	Work Orders/ Contracts/ Agreements/ Scope of Work should be uploaded.
4 Existence of the bidder as per company incorporation certificate / registration Certificate:	From 10 Years to 12 Years = 8 marks. Beyond 12 Years = 10 marks	10	Company incorporation certificated issued by MCA, Govt. of India
5 Quality Certification: a) ISO 9001:2015 = 2 Marks b) ISO 27001:2022 =3 Marks c) CMMI Level 3 or above = 10 Marks	ISO 9001:2015 = 2 Marks ISO 27001:2013 =3 Marks CMMI Level 3 or above = 10 Marks	15	Relevant copy of certificate highlighting validity
6 The Bidder/firm should have full time technical employees	Between 50 to 100 = 5 Marks More than 100 = 10 Marks More than 200 = 15 Marks	15	Copy of latest EPF challan & Letter from HR

Technical Qualification Criteria

	Criteria	Basis for Evaluation	Max Marks	Supporting Documents
	Annual sales turnover of the last three financial years 2022-23, 2023-24 & 2024-25, should be at least INR 20 Crores. From IT/ITES Services.	>= 25 Crores: 15 marks <=25 and >=20 Crores: 10 marks	15	Extracts from the audited Balance sheet and Profit & Loss; OR Certificate from the statutory auditor
2	Agency must have successfully completed at Software development, Implementation and support engagement(s) in any Govt (Central and/or Indian State) or PSUs.	>= 3 projects : 20 marks =2 projects : 15 marks =1 project : 10 mark	20	Work Orders/ Contracts/ Agreements/ Scope of Work should be uploaded.
3	Past Experience of working in development project including information Technology in Engineering Department (Central and/or Indian State Govt.)	2 Project software development in Engineering Department =10 1 Project software development in Engineering Department and allied sector =5	10	Work Orders/ Contracts/ Agreements/ Scope of Work should be uploaded.
4	Existence of the bidder as per company incorporation certificate / registration Certificate:	From 10 Years to 12 Years = 8 marks. Beyond 12 Years = 10 marks	10	Company incorporation certificated issued by MCA, Govt. of India
5	Quality Certification: a) ISO 9001:2015 = 2 Marks b) ISO 27001:2022 =3 Marks c) CMMI Level 3 or above = 10 Marks	ISO 9001:2015 = 2 Marks ISO 27001:2013 =3 Marks CMMI Level 3 or above = 10 Marks	15	Relevant copy of certificate highlighting validity
6	The Bidder/firm should have full time technical employees	Between 50 to 100 = 5 Marks More than 100 = 10 Marks More than 200 = 15 Marks	15	Copy of latest EPF challan & Letter from HR

	Proposed Team (Project Manager, Server Administrator, Database Administrator, Programmer, Technical Support Engineer)	Max. 1 Marks for Each	5	CVs of Key Professionals proposed
8	Technical Presentation	Presentation of Solution Approach & Methodology	10	Innovative solution approaches can be proposed to deliver quality solution while maintaining all service levels

For further details relating to the **scope of work, qualification and job responsibilities of resources, Service Level Agreement (SLA), penalty provisions and other related conditions**, bidders are advised to refer to the **Terms of Reference (TOR)** section of this RFP document.

Bidders who score **70 marks or more out of 100 marks** in the Technical Evaluation, as specified above, shall be considered **technically qualified** and shall be included in the shortlist for opening and evaluation of their **Financial Proposal (Price Bid)**. However, in the event that the number of technically qualified bidders is fewer than two, the **BRPNNL** may, at its sole discretion, consider qualifying bidder(s) who have secured a technical score of less than 70 marks but **not less than 65 marks**, for the purpose of maintaining adequate competition.

The selection process shall be carried out using the **Quality and Cost Based Selection (QCBS)** method. Under this method, **75% weight age shall be assigned to the Technical Evaluation** and **25% weightage shall be assigned to the Financial Evaluation**. The Evaluation Committee of the **BRPNNL** shall open and evaluate the Financial Proposals only of those agencies that have qualified in the Technical Evaluation stage.

In the second stage of evaluation, the Financial Evaluation shall be conducted in accordance with the provisions specified herein. For the purpose of Financial Evaluation, only the **quoted amount mentioned in words** in the format prescribed in **financial**, as submitted in the Financial Proposal, shall be considered. The technically qualified bidders shall be assigned a total score based on the combined Technical and Financial Scores.

For calculation of the combined score, **75% weight age shall be assigned to the Technical Score** and **25% weightage shall be assigned to the Financial Score**.

The evaluation shall be carried out on the basis of a weighted average as per the QCBS methodology. The **Technical Score (St)** of each bidder shall be calculated using the following formula:

$$St = (T / TH) \times 100$$

where **T** is the Technical Score obtained by the bidder and **TH** is the highest Technical Score obtained among all bidders.

The **Financial Score (Sf)** shall be calculated using the following formula:

$$Sf = (FL / F) \times 100$$

where *FL* is the value of the lowest Financial Bid among all bidders and *F* is the Financial Bid quoted by the respective bidder.

The **Total Score (TS)** of each bidder shall be determined using the following formula:

$$TS = (0.75 \times St) + (0.25 \times Sf)$$

The bidder obtaining the **highest Total Score (TS)** shall be declared as the **First Ranked Applicant (H1)** and shall be considered for award of the contract. The Second and Third Ranked Applicants, as applicable, shall be kept in reserve and may be invited for negotiations in the event the First Ranked Applicant withdraws or fails to comply with the requirements specified in this RFP document. In case two or more bidders obtain the same Total Score, the bidder with the **higher Technical Score** shall be declared as the successful bidder.

Normalisation Clause:

The Evaluation Committee may seek written clarifications from bidders during the evaluation process. The primary purpose of such clarifications shall be limited to resolving ambiguities or uncertainties arising from the evaluation of the bid documents. Such clarifications shall not result in any change in the scope, price or substance of the proposal.

The BRPNN Ltd reserves the right to accept any proposal, either in part or in full, or to reject any or all proposals without assigning any reason whatsoever. The BRPNN Ltd also reserves the right to cancel the entire selection process and reject all proposals at any time prior to the award of the contract, without incurring any liability whatsoever to the affected bidder(s).

The successful bidder shall, within **seven (7) days** of issuance of the **Letter of Intent (LoI)**, convey its acceptance of the LoI in writing to the BRPNN Ltd.

The BRPNN Ltd reserves the right, at the time of award of contract and/or during the validity of the contract, to **increase or decrease the scope of services**. Payment for such variation in scope shall be made strictly on the basis of the **unit rates quoted by the bidder** in the Financial Proposal.

The BRPNN Ltd. shall notify the successful bidder in writing by issuing a **Letter of Intent (LoI)**, indicating that the proposal has been accepted. The LoI shall briefly specify the essential details, including the description of services and the corresponding prices accepted, subject to execution of a formal contract agreement containing detailed terms and conditions as stipulated in this RFP/NIT.

The successful bidder shall be required to furnish a **Performance Security equivalent to 5% of the total contract value** in the prescribed form to the BRPNN Ltd before execution/signing of the contract agreement. Failure to submit the required Performance Security within the stipulated time shall result in cancellation of the award and may lead to debarment or blacklisting of the bidder, as deemed appropriate by the BRPNN Ltd.

The contract agreement shall be executed between the **BRPNNL** and the selected agency. Any stamp duty, registration charges or other statutory levies payable on execution of the agreement shall be borne solely by the selected bidder/service provider.

Section IV – Bidding Forms

Form F-1: Format for Financial Bid Submission

(For sample only, actual Format to be downloaded from e-tender portal for on-line submission)

Sub.: RFP for _____

Ref: _____

Dear Sir,

I/We, the undersigned having examined the above referred RFP including addendums thereof and, hereby offer to submit our bid to undertake the subject assignment with total bid value as per milestone and break-up furnished below.

1. Design and Development Phase-CAPEX-A

S. No	Services	Unit	Quantity	Total Cost (Unit * Quantity)
1	Design, Development and Finalization of MIS Software followed by testing- UAT Completion and GO Live (Successful Deployment of Application)	Lump Sum Basis	01	
Total without Taxes				
Taxes %				%
Tax Amount (INR)				
Total Including Taxes(INR)				

(2) Operation and Maintenance Phase-OPEX-B

S.No.	Description of Services	Qty	Rate/ Month	Unit	Total Cost
		A	B	C	D = A*B*C
1	Project Maintenance Cost	1		60 Months	
2	Bridge Engineer – Team Leader (Civil)	1		60 Months	
3	Bridge Assistant Engineer (Civil)	1		60 Months	
4	Team Leader Cum Solution	1		60 Months	

Request For Proposal for Management Information System (MIS)

	Architect (IT)				
5	Software Engineer	3		60 Months	
6	Web Developer	2		60 Months	
7	Mobile Application Developer	1		60 Months	
8	MIS Business Analytics Expert	1		60 Months	
9	Technical Support Expert	2		60 Months	
Total without Taxes(2)					
Taxes %					
Tax Amount (INR)					
Total Including Taxes(INR)					

TOTAL COST OF FINANCIAL BID – CAPEX - A + OPEX – B =

Note :

- Payment due shall be made after deducting applicable taxes.
- GST/any other applicable taxes shall be paid at actuals / as per prevailing rates at the time of invoicing.
- All the payments will be made to the bank account of the SP.

Part III – General Conditions of Contract

Governing Law

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

Period of Contract

- The term of this Contract Agreement shall be for a period of Five (5) years with effect from Go-Live date.
- The Agreement Period may be further extended for a period of another two (2) years on existing terms and conditions subject to satisfactory performance.

Performance Bank Guarantee

20. The IA shall deposit with BRPNN Ltd. Patna within fifteen (15) days of the date of letter of acceptance, an unconditional and irrevocable Performance Bank Guarantee (PBG) equal to 5% of the total cost.
21. On failure to submit PBG within the due date, penal interest will be charged by BRPNN Ltd. Patna.
22. The PBG may be discharged / returned after 180 days of Completion of Contract Period.
23. BRPNN Ltd. Patna shall be entitled to forfeit the PBG in the event the IA commits a breach of any terms and conditions.

Force Majeure

The IA shall not be liable for termination for default if its delay in performance is the result of an event of Force Majeure, including: acts of BRPNN Ltd. Patna in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

Change Orders and Contract Amendments

BRPNN Ltd. Patna may at any time order the IA to make changes within the general scope of the contract. An equitable adjustment shall be made in the Contract Price or Delivery Schedule. Any claims for adjustment must be asserted within 30 days of receipt of the change order.

Conflict of Interest

A Bidder shall not have a conflict of interest that may affect the bidding process. A Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, BRPNN Ltd. Patna shall forfeit and appropriate 5% of the value of Bid Security.

Bidding Forms

Form T-1: Technical Bid Covering Letter

(To be prepared on letter head of the Bidder, scanned & uploaded on E-tender portal)

To,

Senior Quality Control Engineer,
Quality Control Division,
Bihar Rajya Pul Nirman Nigam Ltd. Patna-15

Sub.: RFP for _____

Ref: _____

Dear Sir,

24. I/We, the undersigned, have carefully examined the contents of the above referred RFP document including amendments/addendums (if any) thereof and we undertake to fully comply and abide by the terms and conditions specified therein.
25. I/We offer to execute the work in accordance with the Scope of work and the Conditions of Contract of this RFP both explicit and implied.
26. I/We undertake that, in competing for (and, if the award is made to us), for executing the above contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".
27. I/We declare that I/We have not been blacklisted/declared ineligible by State Road Transport & Highways, Government of Bihar or any other agency.
28. I/We certify that I/We have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority.

Yours sincerely,

Name: _____

Designation/Title of the Authorized Signatory: _____

Form T-2: Brief Information about the Bidder

(To be prepared on letter head of the Bidder, scanned & uploaded on E-tender portal)

Field	Details
(a) Name of Bidder	
(b) Year of Establishment	
(c) Constitution of the bidder entity	
(d) Name(s) of Directors/Proprietors/Partners	
(e) Complete postal address	
(f) Fixed telephone number	
(g) Mobile telephone number	
(h) E-mail address	
(i) Name & Address of principal banker	
(j) Bank A/c Number	
(k) Branch Address & IFSC/MICR Code	
(l) Name of Statutory Auditor/CA	

Form 1-4 Format for Submission of Detailed Methodology and Technical Work Plan

NOTE: Total information provided should not exceed 45 pages. Focus strictly on the topics as asked.

#	Section	Requirement
1	Detailed Methodology	
2	Technical Work Plan	
3	Overall System Architecture and Proposed System Design	
4	Time Schedule for implementation (beginning with start/finish date)	
5	Any other aspects the Buyer may wish to consider	

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Form T-6: Performa for Submitting Written Queries

(to be submitted in doc/Editable format only at the given email address)

Sub. RFP for _____
Name of Company _____
Name of Person _____
Contact No. _____
Email Id _____

Sl No.	Page No.	Clause	RFP Statement	Query	Remarks
1					
2					
3					
4					
5					

