Request for Proposal

SELECTION OF SERVICE PROVIDER FOR DESIGN, DEVELOPMENT AND IMPLEMENTATION OF BUILDING AND ASSET MANAGEMENT SYSTEM FOR ST & SC DEVELOPMENT, MINORITIES & BACKWARD CLASSES WELFARE DEPARTMENT, GOVERNMENT OF ODISHA

RFP No.: OCAC-SEGP-SPD-0023-2025-25058

Vol-II Terms of Reference

ODISHA COMPUTER APPLICATION CENTRE

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1 Background

The ST & SC Development, Minorities & Backward Classes Welfare Department of Odisha is a pivotal entity committed to the welfare and socio-economic development of Scheduled Tribes (ST), Scheduled Castes (SC), and other marginalized communities in the state. Established initially in 1946-47 as the Backward Classes Welfare Section under the Planning and Rebuilding & Asset Department, the department has evolved through multiple renaming and restructuring phases, aligning with its expanding mandate to address the diverse needs of these communities.

Over the years, the department has undertaken several initiatives aimed at improving educational access, providing scholarships, and implementing infrastructure development projects. Additionally, it is actively engaged in enhancing living conditions by ensuring access to essential amenities and promoting economic empowerment initiatives.

A significant focus area of the department is infrastructure development, particularly in the construction and management of educational buildings, hostels, staff quarters, and administrative offices. These efforts are aimed at fostering inclusive growth and enabling equitable access to resources for marginalized populations.

The proposed project is conceptualized to modernize infrastructure management across all targeted communities by enabling real-time data access and improving decision-making capabilities for administrative authorities. By digitizing manual processes and integrating geo-tagged data, the initiative seeks to enhance the operational efficiency and impact of the department's development programs.

2 Project Objective

The objective of the Building & Asset Management System is to develop a unified, digital platform that enables end-to-end management, monitoring, and governance of physical assets and infrastructure owned and operated by the ST & SC Development, Minorities and Backward Welfare Classes Department. This comprehensive system aims to enhance asset visibility, operational efficiency,

financial accountability, and service delivery through intelligent automation, real-time data analytics, and GIS integration.

The proposed solution will facilitate the structured creation, maintenance, and retirement of asset records, while also ensuring standardized documentation, streamlined inspections, timely maintenance, and optimized resource utilization. The system will act as a central digital repository for all asset-related information, supporting transparent decision-making, preventive maintenance, and lifecycle cost optimization.

This initiative aligns with the broader vision of Digital Governance and Smart Building & Asset Management, aiming to:

- Minimize asset underutilization and duplication,
- Reduce manual dependency and errors,
- Improve field-level tracking and verification through mobile and GIS technologies,
- Ensure data-driven planning and budgeting for asset creation, upgradation, and disposal.

Ultimately, the project seeks to empower administrative stakeholders with a scalable, secure, and user-friendly tool that modernizes public asset governance while promoting transparency, accountability, and citizen-centric infrastructure development.

3 Scope of Work

3.1 Overview

The scope of work for the Selected Bidder during the period of contract/ engagement shall include:

- Detailed System Study, Requirement Analysis, System Requirement Specification for the upgraded application and Suggestion for Government Process Re-engineering.
- Design, finalization and Customization/development of the solution
- Configuration, installation and hosting of the new application at Odisha State Data Centre.
- Integration with existing 3rd party Applications and to meet future need as per new scope additions.
- Software Solution Testing
- Deployment & Configuration
- User Acceptance Testing (UAT)
- Compliance to Odisha State Data Policy (which will be released soon. However, most of the compliances as mentioned in draft policy is attached at Annexure-A in Vol-I)
- Go-Live of Software Solution
- Training
- Support & Maintenance (O&M) for a period of one year from date of Go-live
- End user hand holding Support (if required by the ST & SC Development Department).
- Data migration, if required.

The initial period of contract is one year and 5 months (i.e. 5 months of software development as well as implementation and one year of support maintenance from the date of Go-live). However, the support maintenance of the entire application may be extended for a period of another 2 years in case of requirement by ST & SC Development Department.

3.2 System Study and Requirement Analysis

The SSP shall perform a detailed assessment of the solution requirements as mentioned in this section. Based on the understanding, and its assessment, SSP shall develop & finalize the System Requirement Specifications (SRS) in consultation with ST & SC Development, Minorities & Backward Welfare Classes Department/OCAC. While doing so, SSP at least is expected to do the following:

- The SSP shall liaise with ST & SC Development, Minorities & Backward Welfare Classes Department
- The SSP shall translate all the requirements mentioned in the document into System Requirements
- Review the existing processes, systems & applications associated with all modules and additional key requirements/ features (if any); and suggest for necessary Government Process Re-engineering for all the required processes.
- Understand / assess data inputs and outputs requirements
- Understand / assess their IT readiness & Training requirements
- Collecting all input forms, registers and reports formats (if any).
- The SSP shall follow a standardized template for requirements capturing
- The SSP must maintain a traceability matrix from the SRS stage for the entire implementation

The selected bidder shall be responsible for the preparation of System Requirement Specification (SRS) document covering all modules & features planned to be covered as specified based on the outcome of detailed System Study and refined/ improvised FRS. The SRS document should be prepared as Global standard.

The selected bidder should demonstrate the FRS/SRS including screen templates, reporting requirements, process flow, and new features suggested before OCAC/ST&SC Development Department for review and should incorporate all the suggestions/modifications made by department.

The Selected Bidder shall obtain sign-off on SRS document from the competent authority of OCAC/ST & SC Development Department. The bidder shall ensure that the SRS document is prepared considering all provisions of future scalability in terms of functional & technical requirement/ enhancement of the all the modules planned to be covered and there integration with 3rd party applications, legacy application and other modules developed in other phases.

After getting sign-off on SRS document, the Selected Bidder shall start the application development/customization work.

The selected bidder is required to update the SRS documents as and when any enhancement/ modifications are made into the module/ system till the duration of contract.

3.2.1. Design

The SSP shall design the solution architecture and specifications for meeting the requirements mentioned as part of this document. The SSP shall be entirely responsible for the design and architecture of the system implemented to satisfy all requirements as described in this document including sizing of the required hardware.

3.2.2. Development

The SSP shall identify, design, and develop components/functionalities that are required to address ST & SC Development, Minorities & Backward Welfare Classes Department requirements mentioned in this document. The SSP shall supply the following documents along with the developed components:

- Business process guides
- Data model descriptions
- Sample reports
- Frequently asked question (FAQ) guides
- Any other documentation required for usage of the implemented solution

3.2.3. Integration

The SSP shall enable integration with different applications (specified in this document). The system should support both pushes, and pull of data from systems proposed to be integrated. The SSP will have to coordinate with the designated nodal agencies for integration, and ST & SC Development, Minorities & Backward Welfare Classes Department /OCAC will facilitate this process.

The bidder is required to incorporate the following integrations within the original software development scope:

1. SMS

2. E-Mail
3. WhatsApp
4. iFMS/Payment Gateway
5. State Dashboard
6. Work Passbook
7. GIS (for application tracking on the map)

The cost of integrating the above applications must be included in the initial software development cost. The integration with SMS, E-Mail, GIS (for application tracking on the map) and WhatsApp will be considered during the User Acceptance Testing (UAT). However, the integration with iFMS/Payment Gateway, State Dashboard, and Work Passbook will be implemented later, based on specific requirements.

Any additional integrations beyond the aforementioned applications (i.e., points i to vii) will be treated as a Change Request, and the associated efforts will be calculated as per the unit rates specified under "Software Enhancement Service."

3.2.4. Testing

The SSP shall design the testing strategy including test cases, and conduct testing of various components of the solution configured/ customized. The solution testing shall at least include Unit Testing, System Integration Testing, Performance Testing, and User Acceptance Testing (UAT).

3.2.5. Third-Party SECURITY Audit

a) The SSP needs to ensure that the solution complies with the CERT-In Security Policy, and Guidelines.
b) The SSP shall appoint a CERT-In empanelled auditor who shall be responsible for performing the Security Audit of the solution.
c) The third-party agency shall conduct an audit on the minimum below-mentioned parameters. The cost of audit & rectification of non-compliance shall be borne by the SSP.
d) Coordination with the CERT-In empanelled firm for security audit, and

obtain the.

e) Carry out security audit before Go-Live of application, and obtain the safe-to-host certification

f) Carry out the periodic audit & certification as, and when it is required as per the OSDC policy.

3.2.6. SSL Certification

The SSP shall carry out SSL certification.

a) Secure connection between Client, and Server through Secure protocol HTTPS

b) Encryption of data during transmission from server to browser, and vice versa

c) Encryption key assigned to it by Certification Authority (CA) in form of a Certificate.

d) SSL Security in the application server

3.2.7. Training

a) The SSP is required to undertake a batch size of 5 people (approx.) in the technical, and process aspects of the application.

b) It would be the SSP's responsibility to set up the infrastructure helpful in providing successful training.

c) The schedule/training calendar, and the training material for imparting training shall be developed by the SSP in consultation with ST & SC Development, Minorities & Backward Welfare Classes Department

3.2.8. Hand holding support Executives:

a) If required by ST & SC Development Department, SSP will deploy an onsite technical resource to work as handholding support executive.

b) The support resource are of two types and their educational & experience criteria as follows

Type of Resource	Qualification & Experience	Deployment Remarks
Handholding Support Engineer	B. Tech with good communication skill	To be deployed at Senior officials
Handholding Support	Any Graduate with	To be deployed at the

Asst.	good communication skill	fields and sections

c) The resource will assist in making the user community familiar with the envisaged system.

d) The resource should be fully conversant with all the functional features, and business processes in the envisaged system.

e) The resource will be responsible for providing daily technical support to the officials of the ST & SC Development, Minorities & Backward Classes Welfare Department. The department reserves the right to determine the deployment location of the resource.

3.2.9. Online Help

It is also proposed that the training contents/user manuals be made available to Users in downloadable (PDF) format so that the users may refer/download it for their reference as, and when needed.

3.2.10. Deployment & Configuration

a) SSP shall deploy the new application/portal over the hardware infrastructure provided by the OSDC.

b) The SSP shall be responsible for the end-to-end management of the hosting, and deployment of the application.

c) The SSP will be responsible for configuration, installation, and hosting of the application in High Availability mode at OSDC.

3.2.11. UAT & Go-Live

After completion of the development work for the application, ST & SC Development, Minorities & Backward Welfare Classes Department /OCAC will conduct the reviews of development work performed by the SSP as UAT. The SSP shall be responsible for:

a) Preparation, and submission of test strategy, test cases, and test results

b) Demonstration of module-wise functionalities/ features before ST & SC Development, Minorities & Backward Welfare Classes Department /OCAC in the staging environment

c) Support ST & SC Development, Minorities & Backward Welfare Classes Department /OCAC, and its designated authority for conducting the testing,

and provide access to the systems as required by them.

d) Rectification in the new application for any issues/ bugs and improvements/ Enhancements / up-gradations suggested Departments (if any) during the UAT without any additional cost.
e) The SSP shall secure sign-off from the ST & SC Development Department upon completion of the User Acceptance Testing (UAT).
f) Following UAT, the SSP shall engage a Cert-in empanelled firm to conduct a Security Audit and provide the final vulnerability report along with a Safe to Host Certificate.
g) Subsequently, OCAC will notify the ST & SC Development Department that the application is ready for Go-live.
h) Upon receiving confirmation from the ST & SC Development Department, the SSP shall deploy the application to the production environment and make it live.
i) The Support & maintenance phase starts from the date of "Go-live"

3.2.12. Infrastructure Support:

a) The solution is proposed to be hosted in OSDC.
b) Post-award of the contract, the SSP will be expected to detail hardware sizing. Based on the sizing of the hardware by the SSP, the hardware will be provided by OSDC.
c) The SSP will be required to develop the solution in their test environment.

3.2.13. Support & Maintenance

The SSP is going to provide Support and maintenance support for a period of one year from the date of go live.

Below are the support going to be provided:

3.2.13.1. Application Support

Application support includes, but is not limited to, production monitoring, troubleshooting, and addressing the functionality, availability, and performance issues, implementing the system change requests, etc. The SSP shall keep the application software in good working order; perform changes, and upgrades to applications as requested by department. Key activities to be performed by SSP in the application support phase are as follows:

a) Enhancement of MIS report as per the requirement

b) Database query report management on emergency

c) Optimization of the already developed reports

d) Tuning of transactions

e) User & access management

3.2.13.2. Software Maintenance

a) The SSP shall provide unlimited support through Telephone/Email/Video Conferencing/ Installation Visit as required as per the service window defined in the document.

b) The SSP shall address all the errors/bugs/gaps in the functionality in the solution implemented by the SSP (vis-à-vis the FRS, and SRS signed off) at no additional cost during the support phase.

c) Any changes/upgrades to the software performed during the support phase shall be subject to comprehensive, and integrated testing by the SSP to ensure that the changes implemented in the system meet the specified requirements and doesn't impact any other function of the system.

d) Tuning of products/ applications, databases, third-party software's, and any other components provided as part of the solution software including reconfiguration of the system in the event of any hardware/ network failures/ if any hardware/ network components have to be replaced, shall be the responsibility of the SSP.

e) Issue log for the errors, and bugs identified in the solution, and any change done in the solution shall be maintained by the SSP, and periodically submitted to ST & SC Development, Minorities & Backward Welfare Classes Department.

3.3 Functional Requirements

3.3.1 Stakeholder Management

- Provision to create user accounts with role-based access control.
- Scope to assign specific modules and functionalities to different users.
- Feature to manage dynamic menu configurations for role-based navigation.
- System must have the provision to track user activity logs for security and audit purposes.

- Provision to enable multi-factor authentication for secure access.
- Feature to deactivate or suspend user accounts based on activity logs.
- Provision to assign hierarchical access levels for department officials.
- Feature to restrict login attempts and provide CAPTCHA verification.
- Provision to generate user access reports for administrative tracking.
- System must have the provision for real-time monitoring of user sessions.
- Feature to integrate with SSO for seamless authentication across platforms if needed.
- Scope to assign menu via dynamic menu configuration and role based access.
- Provision to define approval workflows for access requests.
- Scope to enable audit trails for user permission modifications.
- System must have the provision to log login/logout timestamps.
- Feature to enforce session timeouts for inactive users.
- Scope to enable role-based access to financial and infrastructure data.
- Provision to alert administrators on unauthorized access attempts.
- Feature to allow delegation of administrative rights within departments.

3.3.2 Asset Management

- Scope to upload and manage legacy data of buildings and assets.
- Provision to geo-tag historical building data for accurate referencing.
- Feature to integrate historical financial records related to asset maintenance.
- Scope to categorize legacy data based on type, usage, and condition.
- Feature to import bulk legacy data using predefined templates.
- System must have the provision to validate imported data before integration.

- Feature to track missing or incomplete records in the legacy data set.
- Feature to allow editing and updating of legacy records with proper authorization.
- Scope to provide an audit trail for modifications in historical data.
- Provision to archive outdated records while maintaining accessibility.
- Feature to generate reports comparing legacy data with current records.
- System must have the provision to integrate legacy data with GIS mapping.
- Feature to flag obsolete or demolished structures for recordkeeping.
- Provision to enable search and filtering options for legacy assets.
- Scope to track depreciation and condition of legacy assets over time.
- System must have the provision to ensure data consistency across records.
- Feature to support role-based access for different levels of legacy data management.
- Provision to geo-tag the legacy data.

3.3.3 Inspection Management

- Provision to schedule inspections for various work phases.
- Provision to assign inspections to internal staff or external agencies.
- Provision to set reminders and notifications for upcoming inspections.
- Provision to record inspection findings in real-time.
- The system should have the provision to fill out inspection reports digitally.
- The system should have the provision to upload geo-tagged photos and videos for verification.
- Scope to record observations, compliance status, and recommendations.
- Scope to mark inspections as Passed, Failed, or Needs Rework.

- Provision to add comments or remarks for further action.
- The system should have the provision to enable a multi-level approval process.
- The system should have the provision to auto-validate geo-tagged data to verify inspections.

  Provision for supervisors to approve or reject inspection reports.
- Provision to trigger work phase progression upon inspection approval.
- Provision to track pending approvals and send notifications.

3.3.4 Integrated Building Management

- Provision to capture infrastructure development requests from various offices.
- Scope to track project plans, executing agencies, cost estimates, and work orders.
- System must have the provision to capture geo-tagged images of building & asset sites.
- Feature to integrate with financial planning modules for budget allocation tracking.
- Scope to maintain real-time progress tracking of infrastructure projects.
- Provision to store historical records of past infrastructure developments.
- System must have the provision to document project delays and justifications.
- Feature to support multi-stage project approval workflows.
- Scope to provide alerts and notifications for pending approvals.
- System must have the provision to maintain an asset lifecycle for each structure.
- Scope to enable public grievance redressal for building & asset-related issues.

3.3.5 Building Repository Management

- Centralized repository for building & asset details, maintenance logs, and financial records.
- Feature to categorize buildings based on usage (academic, hostel, office, etc.).
- Integration with GIS for real-time location verification.
- System must have the provision to link financial transactions to respective buildings.
- Feature to track ownership history and transfer details of each property.
- Scope to allow data export in multiple formats for analysis.
- Provision to capture building permits, approvals, and compliance documents.
- Feature to integrate with disaster risk management plans for infrastructure.
- System must have the provision to monitor the occupancy status of buildings.
- Feature to track periodic condition assessments and safety inspections.
- Scope to provide real-time updates on ongoing maintenance work.
- Provision to store and retrieve lease agreements and rental records.
- System must have the provision to maintain separate records for government and private-funded buildings.
- Feature to generate dashboards summarizing key repository insights.
- Scope to enable inter-departmental collaboration for shared infrastructure records.
- Provision to log and track infrastructure expansion requests.

3.3.6 Site Selection

- Provision to evaluate potential sites based on predefined criteria such as accessibility, land suitability, and existing infrastructure.

- Feature to capture geo-tagged data of proposed sites for verification and future reference.
- Scope to integrate demographic and environmental data for informed decision-making.
- System must have the provision to generate automated site assessment reports.
- Feature to track and document site selection approvals at multiple levels.
- Provision to store historical data of previously rejected or approved sites.
- Scope to generate comparative reports on multiple site options.
- Feature to link site selection data with project planning and budgeting.
- Provision to allow stakeholders to submit recommendations for site approvals.
- Scope to enable site feasibility scoring based on predefined parameters.
- Feature to track land ownership and encumbrance details.
- System must have the provision to generate alerts for site inspection due dates.

3.3.7 Project Execution Plan

3.3.7.1 **Manage Project Execution**

- The system must allow users to develop detailed project execution plan for building projects.
- Users can define progress and add corresponding list items of work for each phase.
- Users can save the project execution plan and submit it for approval.
- Scope to Undo changes or revert to the previous step if needed.
- The system must auto-fill progress status based on surveyor entries from the mobile application.
- Users can track which progress are geo-tagged or non-geo-tagged.

- These will be verified to confirm the actual status of the work phase and work list.
- Users must be able to view all approved geo-tagged photos.
- The system must allow users to track progress and adjust project execution plans as needed.

3.3.7.2 **Revise Project execution plan Request**

- Users must be able to request revisions to existing project execution plans for building projects.
- The system must allow users to:
  - Select the project to view progress that need revisions.
  - Modify work items and update the estimated budget accordingly.
  - Save and submit the revision request for approval.
  - Undo changes if necessary.
  - Edit and update requested project execution plan details.
  - Activate or deactivate revised project execution plans based on approval status.
- Once approved:
  - Users must be able to add the revised progress and update the list of items accordingly.
  - The surveyors' mobile app data must automatically update work phase status in the system.
  - The system must allow users to view, edit, and track revisions.
- Geo-tagging and Verification:
  - Users can track geo-tagged vs. non-geo-tagged project execution.
  - The system must allow approval of geo-tagged photos to verify the work phase progress.
  - Users must be able to view approved geo-tagged photos.
- Real-time Monitoring and Updates:
  - The system should provide progress tracking and update project execution plans as needed.

3.3.8 Repair & Maintenance

- Provision to log and categorize maintenance requests for different buildings.
- Scope to track preventive and corrective maintenance activities.
- Feature to schedule and manage routine inspections of infrastructure.
- System must have the provision to generate maintenance work orders.
- Scope to track contractor performance for maintenance activities.
- Provision to enable real-time tracking of repair progress.
- Feature to document maintenance history for each building.
- System must have the provision to automate maintenance notifications.
- Scope to allocate budgets for planned maintenance activities.
- Feature to integrate with a ticketing system for maintenance queries.
- Provision to track the availability of spare parts and maintenance materials.
- Scope to document emergency repair workflows and escalation processes.
- Feature to ensure compliance with safety and regulatory maintenance standards.
- System must have the provision to generate performance reports on maintenance activities.

3.3.9 e-Cashbook

- Provision to capture and manage budget allocations for building & asset projects.
- Scope to track financial sanctions and approvals at various levels.
- Feature to integrate with government financial systems for seamless fund management.
- System must have the provision to monitor expenditure against allocated budgets.

- Feature to generate automated Utilization Certificates (UC) for submitted expenses.
- Scope to categorize financial transactions by project, agency, and expenditure type.
- Provision to ensure compliance with financial reporting standards.
- Feature to generate alerts for pending fund disbursements.
- System must have the provision to allow real-time reconciliation of funds.
- Scope to generate expenditure trend analysis reports.
- Feature to track fund utilization across multiple financial years.
- Provision to integrate with audit systems for compliance verification.
- Scope to allow real-time monitoring of sanctioned vs. utilized funds.
- Feature to provide dashboards displaying financial health of projects.
- System must have the provision to generate automated reports for financial oversight.

3.3.10 GIS Based Progress Monitoring

- Captures and displays project locations with real-time updates for the buildings & assets under the department.
- Allows multiple data layers, including the building details in an Odisha map. It should be drill down in the map until the block level.
- The system should have the provision to generate progress heatmaps, deviation analysis, and risk assessment reports.
- The system should have the functionality to filter data by building type, status, or region for quick insights.
- Enables on-site officials to update project status directly from the field.
- Scope to track unauthorized building & assets through digital mapping.
- Provision to integrate GIS mapping for location-based tracking also provision for interactive dashboards for field officers and decision-makers.

- Provision to compare planned vs. actual building footprints using GIS.

3.3.11 Query Management

- Provision to log and categorize queries from different stakeholders.
- Scope to assign query tickets based on urgency and department.
- Feature to integrate with a ticketing system for real-time issue tracking.
- System must have the provision to track resolution status and timelines.
- Feature to provide automated acknowledgments and responses.
- Scope to enable multi-level approval and redirection of queries.
- Provision to categorize queries based on infrastructure, finance, and compliance.
- Feature to store and analyze historical query data for process improvements.
- System must have the provision to generate automated query resolution reports.
- Feature to provide role-based access to different query types.
- Scope to integrate with a notification system for real-time updates.
- Provision to track frequently asked queries and create a knowledge repository.
- Feature to allow query escalation based on predefined SLAs.
- System must have the provision to generate performance metrics for query resolution teams.
- Feature to ensure data security and confidentiality in query handling.

3.3.12 Document Management System

- There should be provision for centralized storage of digital documents and files.
- There should be provision for organizing documents by categories of buildings.

- There should be provision for version tracking for documents to manage revisions.
- There should be provision for access to previous versions and history of changes.
- There should be provision for quick search and retrieval of documents based on keywords, metadata, or content.
- There should be provision for advanced search filters for accurate document retrieval.
- There should be provision for uploading and importing documents in various formats.
- There should be provision for adding and managing metadata to facilitate document categorization and search.
- There should be provision for customizable metadata fields based on document types.
- There should be provision for ensuring appropriate document access based on roles.
- There should be provision for collaboration features allowing multiple users to work on the same document.
- There should be provision for real-time co-authoring and editing of documents
- There should be provision for secure sharing of documents with internal and external stakeholders.
- There should be provision for links or sharing options with controlled access.
- There should be provision for notifications and alerts for pending approvals
- There should be provision for adding annotations, comments, and notes to documents.

- There should be provision for archiving of older or less frequently accessed documents.
- There should be provision for retrieval of archived documents when needed.
- There should be provision for mobile app or responsive interface for accessing documents on mobile devices.
- There should be options for users to download and print documents as needed.
- There should be provision for generating document previews for common file formats.

3.3.13 AI Implementation

- Provision to differentiate blurry image from clear ones and to ask the user to take another picture in case of blurry ones.
- Provision to utilize AI-driven analytics for predictive maintenance planning.
- Scope to implement AI-based anomaly detection for infrastructure quality checks.
- Feature to enable AI-driven cost estimation for new building & assets.
- System must have the provision for automated risk assessment of project sites.

3.3.14 Mobile Application

- Provision for the development of both android & iOS mobile application.
- Users can geo-tag and register existing buildings for better tracking and verification.
- Users can capture and validate site locations via real-time GPS mapping during the selection process.
- Users can upload geo-tagged photos to verify completed project execution plan.
- The app enables users to geo-tag repair and maintenance activities to ensure accurate task documentation.

- System must have the provision to work in offline mode and sync data when online.
- Feature to generate automated checklists for site inspections and compliance verification.
- Provision to integrate with GIS for precise location-based tracking of inspections.
- Provision for having push notifications & alerts.
- Provision to facilitate the inspection related activities.

3.3.15 Dashboard & MIS Reports

- Provision to display real-time project progress on a centralized dashboard.
- Scope to generate customized KPI-based reports for different stakeholders.
- Feature to integrate real-time financial tracking and expenditure dashboards.
- Feature to allow role-based dashboard customization.
- Scope to enable comparative analysis of project performance.
- Feature to allow visualization of historical trends in building & asset data.
- System must have the provision to generate compliance and audit reports.
- Feature to track real-time utilization of budget and sanctioned funds.
- Scope to provide exportable reports in multiple formats (PDF, Excel, etc.).
- System must have the provision for automated daily, weekly, and monthly reports

3.4 Guiding Principles

The solution should adhere to the following principles.

3.4.1 Standards

a) The system architecture should be based on industry standards and protocols

b) The system shall be centrally deployed and globally accessed

c) The system shall be designed to be scalable and easily extensible

d) The system should be flexible to cater to changing business, industry and compliance requirements (including reporting requirements in proper formats)

3.4.2 Application

a) All applications must take into account appropriate security, performance, efficiency and maintainability issues.

b) The ownership of the product licenses would be with OCAC

c) Upgrade to new releases should not become mandatory for the next five years from the date of installation.

3.4.3 Integration

The integrated solution design should include framework for integration of both internal and external applications and services using suitable architecture.

3.4.4 Data

a) Data will be owned, shared, controlled and protected as a corporate asset of the OCAC.

b) Data should only be accessed through application / interfaces to create, update and delete. There should not be any direct access to the data layer for users.

3.4.5 Data Security

a) Provide strategy to maintain data security at the application level, database level, messaging and middleware level

b) Provide security strategies when the applications are accessed by the resources from outside the network

c) Provide strategies of encryption and security for external transaction with partner network and systems

d) The bidder has to maintain logs in database.

e) The bidder should keep track of all the journey of the user from login to logout including timestamp as log in database.

3.4.6 Adherence to Standards

The system shall comply with relevant defined industry standards (their latest versions as on date) wherever applicable. This shall apply to all the aspects of solution including its design, development, security, installation, and testing. The suggested architecture must be scalable and flexible for modular expansion. It should ensure ease of integration with software / applications developed using common industry standards, since the solution may be linked and connected to other sources (websites, contents, portals, mobile app systems of other user departments etc.) as well as there may be loose/tight integration with backend system of other departments depending on individual service processes. The solution architecture should thus have provision to cater to the evolving requirements of the Department.

The application must be complaint with GIGW v3.0 issued by Govt. of India

A reference list of the minimum industry standards which the system components should adhere to is mentioned below:

Component	***Standards***
Information Access / Transfer Protocols	SOAP, HTTP/HTTPS
Interoperability	Web Services, Open Standards
Portal Development	W3C Specifications
Document encryption	PKCS specification
Information Security	ISO 27001 certified System
Operation	ISO 9001 Certified
Service Management	ISO 20000 specifications or latest
Project Documentation	IEEE/ISO Specifications for documentation
Data Standards	All-important data entities should be in Line with standards published by MeiTY.

3.5 Security, Integrity & Confidentiality

a) **Web Services Security:** System shall comply with all the Web services including routing, management, publication, and discovery should be

carried out in a secure manner. Those who are using the Web services should be able to utilize security services such as authentication, authorization, encryption and auditing. Encryption of data shall take place at client level itself. Application server shall provide SSL security.

b) **Data Integrity and Confidentiality**: Data integrity techniques need to be deployed to ensure that information has not been altered, or modified during transmission without detection. Similarly, Data confidentiality features are also to be applied to ensure that the data is only accessible by the intended parties.

c) **Transactions and Communications:** With respect to the Data Transactions and Communications, system needs to ensure that the business process are done properly and the flow of operations are executed in correct manner.

d) **Non Repudiation Security:** The application shall have the Non-repudiation security services to protect a party to a transaction against false denial of the occurrence of that transaction by another party. End-to-End Integrity and Confidentiality of Messages, integrity and confidentiality of messages must be ensured even in the presence of intermediaries.

e) **Database Controls:** The database controls for online transaction processing systems like access to database directly, access to database through application, access to log files, access by the remote terminals, DBA controls, backup policy and backup procedures.

3.2.1. Compliance with Odisha State Data Policy

The application developed by the bidder must adhere to the Odisha State Data Policy, which will be released by OCAC in due course. The guiding principles for compliance are provided in Annexure-A.

4 General Terms

4.1 Change Request Management

Looking into the length of the project implementation period it is very usual to find changes in business logic frameworks. In such scenarios, there may be a need of modification of the software modules beyond SRS/Scope document

mentioned in this RFP. It may also be required to develop new software modules beyond the coverage of SRS/ Scope document.

a) The activities that will be treated as enhancement services is mentioned below:
   i) Functional changes in the application
   ii) Development of new module/sub-module/Form/Report in the developed system
   iii) Changes in the workflow or core application framework
   iv) Integration with any new system not mentioned in RFP
   v) Additional onsite resources in the project
b) The procedure for executing the change request is as follows:
   i) Analysis: SSP will analyse the changes suggested and submit an effort estimation including timeline to ST & SC Development, Minorities & Backward Welfare Classes Department
   ii) Approval**:** ST & SC Development, Minorities & Backward Welfare Classes Department shall do the due diligence and provide approval on the effort and timeline suggested.
   iii) Incorporation**:** After receiving the approval from ST & SC Development, Minorities & Backward Welfare Classes Department, team will incorporate the changes in the application.
   iv) On approval, SSP shall deliver the services and raise the claim as per actual according to the Commercial Bid.

The cost of the change request will be determined based on the rates specified in the financial bid format under "Software Enhancement Service." The bidder is required to provide a quote for 50 man-months, with payment to be made based on the actual man-months utilized.

4.2 Other Technological Requirement

The bidder has the flexibility to propose any system software, including databases, application servers, or third-party solutions, based on the requirements of their proposed solution. All licenses or subscriptions for such software shall be procured in the name of OCAC.

Alternatively, the bidder may opt to implement Free and Open Source Software (FOSS). In cases where proprietary software is proposed, the bidder must procure the necessary licenses in the name of OCAC/E&IT Department, Government of Odisha. The cost of such licenses shall be borne by the bidder, as specified in the price bid format.

4.3 Exit Plan

a) Provide systematic exit plan and conduct proper knowledge transfer process to handover operations to OCAC technical team at least three months before project closure.

b) OCAC will work closely with the SSP during knowledge transfer of testing, staging and production environment.

c) All knowledge transfer should be documented and possibly recorded.

d) Ensure capacity building of the IT resource persons of OCAC on maintenance of software and infrastructure.

4.4 Project Documentation

Below list of documents needs to be submitted to OCAC during the project contract period, as per the requirement of OCAC.

a) Latest version of Source Code

b) System Requirement Study Documents

c) System Design Document

d) Test Plans and Reports

e) Issue Logs

f) User Manual

g) Application Installation & Configuration Manual

h) Report of Security Audit & Safe-to-Host Certificate

i) Any other documents defined under Timeline & Tentative Deliverables

All the above documentation should be done as per IEEE/ISO/CMM Standard.

4.5 Expected Project Timeline and Penalty

4.5.1 Project Timeline and Penalty

T : Date of issuance of PO or signing of contract whichever is earlier

Sl#	Project Component	Tentative Deliverables	Responsibility	Time line	Penalty in case of deviation
1.	Mobilization of Team and System Study	• Final Project Schedule with breakdown structure • Detailed Team Structure with team members • Point of Contact • SRS Document with screen prototypes and Prototype walk through	Bidder	T+2 weeks (T1)	Beyond 2 weeks, 0.25% of the application development cost per week for 2 weeks. After that 0.5% of the application development cost per week
2.	Approval of SRS	• Approval letter	ST & SC Dev Deptt	T1+1 Week (T2)	

3.	Software Development, Testing, Deployment, Configuration	• Source Code • System Design Document • Test Plans & Test Cases • User manual • Administration Manual • Hardening checklist (if any) • FAQs • Handbook for helpdesk • Hosting of Application in staging environment	Bidder	T(2)+ 6 weeks (T3)	Delay beyond 6 weeks from the date of approval of SRS will attract 1% of penalty on the application development cost per week
4.	User Acceptance Test	• Preparation Test Cases by Deptt with help of bidder • UAT	Bidder and OCAC	T3+1 Week (T4)	Beyond 1 week, 0.25% of the application development cost per week
5.	Training	• Training to Stakeholders	Bidder, OCAC and ST & SC Dev. Department	T4+2 Week (T5)	Beyond 2 week, 0.25% of the application development cost per week
6.	Security Audit	• Auditor's vulnerability report • Fixing of vulnerabilities found during security audit • Safe to Host to be issued by auditor	Bidder	T(4)+2 weeks (T6)	Beyond 2 weeks, 0.5% of security audit cost per week.

7.	Go-Live	Movement of application from Staging to Production environment	Bidder	T(6)+1 week	
8.	Support & Maintenance	• Quarterly status report on application • Satisfactory performance report from ST & SC Dev Department	Bidder, OCAC and ST & SC Dev. Department	1 Year after Go-Live	Beyond 1 week, 0.25% of the application development cost per week
9.	Resource Deployment (if any)	• Monthly activity report • Approval of ST & SC Dev Department	Bidder, OCAC and ST & SC Dev. Department		

Note :

1. **In case there is a delay of 200% with respect to the given timeline or non-satisfactory performance of the bidder, the authority reserves right to take action against the bidder as deemed proper (such as cancellation of order, increase of penalty percentage etc).**

4.5.2 Maximum Penalty

The maximum penalty applicable under this contract shall be capped at 10% of the respective item cost. Under no circumstances shall the cumulative penalty imposed exceed this specified limit, regardless of the nature or duration of the non-compliance or delay.

4.5.3 Exemption for Non-Attributable Delays

Penalties shall be applicable for delays in project timelines or deliverables as per the contract terms. However, no penalty shall apply if the delay is due to factors beyond the bidder's control and not attributable to the bidder, including but not limited to force majeure events, dependencies on the procuring entity, or other mutually agreed reasons. The bidder must provide adequate evidence and notify the procuring entity within a reasonable period to seek exemption from penalties.

4.6 Performance Requirement (SLAs)

The purpose of this Service Level Agreement (herein after referred to as SLA) to clearly define the performance criteria that shall be adhered by the SSP during the contract period.

Sl#	Major Area	Parameter	Requirements	Penalty
a)	Availability of application	Application covering all the features	98% availability round the clock and Computation will be done on monthly basis. Note : Fault at application level only	Up to 90-97.99% - 1% of application development cost. Less than 90%- 2% of application development cost
b)	Resolution Time for the Application (Bug fixing)	Time taken by the Bidder to fix the problem	Within 6 hours of reporting	6hrs to 24 hrs @0.01% of application development cost. Beyond 24 hrs 0.1% of application development cost.
c)	Resolution Time for Authentication / Registration related issues	Time taken by the Bidder to fix the problem	Within 3 hours of reporting	3hrs to 6 hrs @0.01% of application development cost. Beyond 6 hrs 0.1% of application development cost.

Note: Penalty will be imposed on the maintenance support cost. Maximum ceiling of the penalty will be 10% cost of the operation and maintenance support of respective year.

4.7 Waiver of Penalty

If at any time during the contract, the selected SSP should encounter conditions impending timely performance of service, the selected SSP shall promptly notify to OCAC in writing of the fact of the delay and its likely duration along its cause(s). As soon as practicable after receipt of the selected SSP's notice, OCAC shall evaluate the situation and may at its discretion waive the penalty on the request of the selected SSP.

4.8 Payment Terms

4.8.1 Implementation and Support

Sl No	Category	Payment Terms
a)	Design, Development and Implementation	▪ 40% of payment shall be released after UAT subject to submission of following deliverables • SRS • SRS Approval • Test Cases • UAT completion from ST & SC Department ▪ Next 30% shall be released after Go-live subject to submission of following deliverables • Safe To host certificate with report from Cert-in empaneled firm • Letter from STSC on Go-live ▪ Balance 30% of application development will be paid after 6 months of successful Go-Live of the application.
b)	Security Audit cost	100% payment on submission of Safe-To-Host Certificate
c)	SSL certificate	100% payment on submission of configuration report
e)	Integration with Other application	100 % payment after successfully integration and go live of each Integration, the payment will be made as per actual number of

		integrations.
f)	Additional Modules / Change Request	100% payment on Go-Live of the additional modules / change request upon approval
g)	Resource Cost	100% of the resource cost shall be paid on a quarterly basis after submission of activity report and approval from ST & SC Dev. Department
h)	Third party Software	100% payment of the respective software tool after submission of license/subscription and installation report
i)	Annual Support Maintenance Cost	After one year of the support maintenance phase from the Go-live date, extensions for Annual Support Maintenance may be provided if needed. In such cases, the payment for Annual Support Maintenance shall be made on a quarterly basis, subject to the department's approval upon the successful operation of the application.

4.8.2 General Conditions

a) Payment schedule - Payments to the SSP after successful completion of the target milestones (including specified project deliverables), would be made as under: -

b) The supplier's/ selected SSP's request for payment shall be made to the purchaser in writing, accompanied by invoices describing, as appropriate, the goods delivered and related services performed, and by the required documents submitted pursuant to general conditions of the contract and upon fulfilment of all the obligations stipulated in the Contract.

c) Due payments shall be made promptly by the purchaser, within thirty (30) days after submission of an invoice or request for payment by the supplier/ selected SSP/authorized partner, and the purchaser has accepted it.

d) The currency or currencies in which payments shall be made to the supplier/ selected SSP under this Contract shall be Indian Rupees (INR) only.

e) All remittance charges will be borne by the supplier/ selected

SSP/authorized partner.

f) In case of disputed items, the disputed amount shall be withheld and will be paid only after settlement of the dispute.

g) Payment in case of those goods which need testing shall be made only when such tests have been carried out, test results received conforming to the prescribed specification.

h) Any penalties/ liquidated damages, as applicable, for delay and non-performance, as mentioned in this bidding document, will be deducted from the payments for the respective milestones.

i) Taxes, as applicable, will be deducted/ paid, as per the prevalent rules and regulations at the time of billing. Legitimate payment shall be made within 30 working days of the receipt of invoice along with supporting documents

5 OCAC Responsibilities

a) Assign a nodal officer who will be single point of contact from the beginning of the project till successful implementation.

b) Assign the nodal officer/ Agency to handover the knowledge of the existing application

c) Provide necessary support to the development team of the SSP for smooth execution of project.

d) Provide all the relevant documents and information during the system study and analysis.

e) Facilitate the Software Solution Provider for the third-party software integration.

f) Provide approval of SRS Document, User Acceptance Test certificate, Go-Live Certificate, approval of activity report during Operation & Maintenance Support phase, AMC etc.

g) Conduct exclusive hand-holding on the existing Application to the SSP. Following activities shall be taken into consideration during handover process:

- Establish a transition team
- Create a transition plan

- Provide detailed documentation
- Ensure multifaceted knowledge transfer
- Get access to all third-party services
- Transfer codebase ownership
- Provide proper understanding on the source code, database table structure etc.

h) Provide hosting infrastructure along with SMS and Email Gateway etc.

6 Contents of technical bid

The bidder should give details of the project methodology to be followed, technology architecture, project plan, resource plan, application support, operation management plan with team structure, helpdesk operation plan with resources etc. in technical bid document.

The bidder should provide details of third party software in technical bid.