

Request for Proposal



**Selection of Software Solution Provider
for Takeover, Enhancement, Operation, Maintenance and
Technical Support of CM KISAN Portal of Department of
Agriculture & Farmer's Empowerment, Government of
Odisha**

RFP No.: OCAC-SEGP-SPD-0021-2025-25036

Vol-II | Terms of Reference



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1 Background

Agriculture plays a critical role in transforming economy, ensuring food security and improving nutrition. The Government of Odisha is primarily responsible for the growth and development of agriculture sector. The Government supplements the efforts through appropriate policy measures and budgetary support. The governmental schemes hold immense potential in bringing right governance at the doorstep of citizens. Similarly, these schemes and services are key for farmers to set up or expand their practices in the agriculture and allied sector. Several schemes and services are offered by the Department of Agriculture & Farmers' Empowerment (DAFE). The schemes are availed by the farmers for getting benefits in terms of Cash/ kind.

One such significant initiative was the Krushak Assistance for Livelihood and Income Augmentation (**KALIA**) scheme, launched in January 2018 to support small and marginal farmers, landless agricultural laborers, and cultivators. The scheme aimed to provide financial assistance, promote livelihood opportunities, and offer insurance and credit support to the farming community, helping them break free from debt cycles and achieve economic stability.

To facilitate the smooth implementation and monitoring of these benefits, DAFE developed an ICT-based platform, known as the KALIA Portal, to manage applications, disbursements, and scheme-related services. As the program has evolved, it has been integrated into a broader initiative **now referred to as “CM KISAN”**, which continues to serve the same objectives with enhanced features and a more comprehensive approach.

The main objectives of the CM KISAN Scheme are as follows:

- a) **Financial Assistance for Cultivation:** Small and marginal farmer families receive financial assistance which will aid them to pursue cultivation. The objective is to financially assist the cultivation needs of farm purchases like seeds, fertilizers, pesticides etc.
- b) **Financial Assistance for Livelihood:** Each landless Agricultural Household will receive some financial assistance for Agricultural allied activities like promoting goat, sheep, poultry farming, mushroom cultivation, bee

keeping and fishery activities etc.

- c) **Financial Assistance for Vulnerable Agricultural Households:** Each family of vulnerable cultivators/landless agricultural labourers like Old-Age, physical disabilities will receive the financial assistance.
- d) **Life Insurance for Cultivators and Landless Agricultural Labourers:** All cultivators and landless agricultural labourers who have savings bank accounts and are in the age group of 18-50 will receive life insurance cover under this scheme. The Odisha government will bear the premium cost. Whereas the cultivators and landless labourers who are in the age group of 51-70; their accidental cover premium will entirely be borne by the state government.
- e) **Interest free Crop loans:** Crops loans of up to Rs. 50000 will be provided to defined farmers recognized by the gram Pannchayat.

Intervention of ICT tools/ platforms plays a vital role for smooth implementation and effective monitoring of the schemes performance. ICT interventions have been developed and tested around the world to help agriculturists improve their livelihoods through increased agricultural productivity and income, or by reducing risks. Department of Agriculture & Farmers' Empowerment (DAFE) has developed KALIA portal for smooth delivery of the schemes for the beneficiary of KALIA scheme. As the existing operation & maintenance contract is expiring, so the department would like to engage a new vendor to take up the further operation & maintenance contract

2 Project Objective

The Directorate of Agriculture & Food Production, Odisha is the key organization that executes CM KISAN scheme in coordination with different stakeholders. For effective program implementation, the State is keen to engage a Software Solution Provider. The key objectives of this engagement is as follows:

- a) To ensure holistic and successful implementation of the CM KISAN scheme
- b) Online registration of farmer's applications throughout the year under CM KISAN
- c) Provision of three tier online verification of farmer's applications followed

- by final approval
- d) To ensure fast resolution of farmer’s grievances
 - e) To address the online issues raised by the field functionaries
 - f) Timely preparation of final eligible beneficiary list after completion of State Level sanitization
 - g) Smooth disbursement of CM KISAN assistance to the eligible beneficiaries
 - h) Timely disbursement of failure transactions.
 - i) Functional of CM KISAN online portal throughout the year for registration of new applications.
 - j) Timely submission of reports and returns as and when required by the department.
 - k) Training to field functionaries.

3 Existing CM KISAN Portal

An end-to-end, web-based application has been developed and deployed for the creation, enrolment and maintenance, and monitoring of the beneficiary database. The application is being used by more than 25,000 users from different levels starting from GP Level, Block level, District Level to State Level.

3.1 Modules/Functionalities Implemented in CM KISAN Portal

Initially the web portal had the following modules:

Sl#	Modules	Description
a)	Beneficiary Data Management	Effective management of beneficiary (farmer) data by sourcing it through various databases, validating the data by integrating with various external applications as well as objections received through inclusion forms.
b)	Program Website	CM KISAN Program website serve as a single point of information for all stakeholders and beneficiaries related to the scheme.

Sl#	Modules	Description
c)	Inclusion Form	<p>Inclusion Form has been developed for including a farmer to the beneficiary list. This module has the following functionalities:</p> <ul style="list-style-type: none"> – AADHAAR number based <ul style="list-style-type: none"> a. Beneficiary detail search b. Online enrolment application by the applicant providing all the details like personal details, land details, bank details and uploading the necessary supporting documents. – Provision to view enrolment application
d)	Grievance Redressal System	<p>Through this grievance redressal system, a user can file a grievance by submitting new application and uploading required documents through the portal. Following activities are performed under this module.</p> <ul style="list-style-type: none"> – Defining grievance category & sub-categories – Registration of users (beneficiaries) by entering details – Generation of OTP and sending it to respective user's phone – Acknowledgement of successful registration through SMS – Provision for Farmers to file a grievance. – Generation of grievance token number – Option to check the status of the grievance – Option for authority to take action against grievance – Provision to forward the grievance to respective higher authority

Later on some additional modules were developed for better functioning of the system & to address various issues related to the payment and the enhanced application was made live which includes the following modules:

Sl#	Modules	Description
a)	Payment Assistance	<p>In order to make the CM KISAN payment process more secured and effective, Aadhaar Payment Bridge System (APBS) has been adopted. In this, the CM KISAN benefit is transferred to the beneficiary Bank account that is seeded with Aadhaar number. And for those beneficiaries whose account number is not seeded with aadhaar number, account based payment is followed.</p> <p>The application has been integrated with SLIA (State Level Implementation Agency) for strengthening accountability and transparency. This module have the following features:</p> <ul style="list-style-type: none"> – Assign unique CM KISAN ID to all eligible beneficiaries – Assign unique transaction ID – Provision for the Maker/checker/DDO to successfully initiate the payment process to the beneficiary – Prepare payment file in bank format – Generate MIS report
b)	Payment Failure	<p>Payment failure module updates beneficiary account details for payment reprocessing of failure cases at GP/Block level.</p> <ul style="list-style-type: none"> – Processing beneficiary list for availing benefits – Updates Scheduler program to know the payment disbursement status – The payment will be disbursed through Payment Assistance module.

Sl#	Modules	Description
c)	RTI Module	<p>RTI Module has been developed to capture all the RTI details by the department authority. This module has the following functionalities:</p> <ul style="list-style-type: none"> – Forward RTI related technical query to the SST team. – Provision for SST to comply against the technical queries mentioned by the department officials. – Provision to track RTI queries by the department officials.
d)	Form Verification	The GP, Block, District & Collector level authorities have the provision to verify the application forms and also have the provision to forward the same to State Level Authorities.
e)	eKYC Module	eKYC module has been developed to check the authenticity of the applicant which leads to aadhaar based payment system.
f)	Track Application Status	<p>Through this module the beneficiary can track their application status just by giving their aadhaar number.</p> <p>The farmer can also check his application detail, know the instalment details, reason for exclusion through this module.</p>
g)	Death Module	Through Death module, the block level users can declare a person as dead by uploading the death certificate. The district and collector level authority has the provision to verify the same.
h)	Revert Module	Through revert module the district and collector level authority have the provision to revert the application of death in case of false death.
i)	Account Updation	In case there is any payment failure of the beneficiary, the block level user can update the account details of the person through this module.

Sl#	Modules	Description
		After that the account details will be verified by SLBC and other bank platforms through integration.
j)	PM-KISAN Verification	The beneficiary details provided by PM KISAN team are being prepared and provided in field officials' login for verification through this module. After verification the same data are sent to the PM KISAN team for further action.
k)	Reports	Various reports are being generated like: <ul style="list-style-type: none"> – Grievance verified – Total eligible farmers – Payment reports – RTI Reports – Total male and female farmers, etc.

3.2 Technology Stack

The following technologies are used in the existing CM KISAN Web portal.

Sl#	Category	Software Title
a)	Operating System	Windows Server 2016
b)	Platform/ Language	ASP.Net 4.5
c)	Database	MS SQL Server 2012 or above
d)	Web Server	IIS 8.0
e)	IDE	Visual Studio 2015
f)	Service	WCF
g)	Depending Module	ASP.Net Ajax

3.3 User/Stakeholder Details

Following is the list of users currently using the application:

Users	Roles and Rights
State level/Department Users	View Reports
District Level Users	Approve/Edit/ View
	View Reports
Block level Users	Approve/Edit/Add/View

Users	Roles and Rights
	View/Edit
Gram Panchayat Level Users	Edit/Add/Approve/View
	Edit/Add/View

4 Scope of Work

4.1 Overview

- a) Complete takeover and management of the existing applications / databases in as-is condition till Go live of the enhanced system.
- b) General enhancement of existing modules as per the requirement of department
- c) Integration with other data sources as per requirement of department
- d) Technology & architecture upgradation of the existing portal
- e) Third-party integrations
- f) Third-party security audit of the application by CERT IN empalled firm.
- g) SSL certification
- h) Periodic cyber security audit as per OSDC policy (Twice in a year after Go-Live)
- i) Deployment and configuration
- j) Data Migration (if required)
- k) Data Security
- l) Post Implementation application Support, application maintenance, system support, operation support of the new version of the application portal after its go-live.
- m) Training to end users
- n) Engagement of System Support Team (SST) as specified in this document.

1.1 Handover and Takeover

The new SI will perform all the functions and services necessary to accomplish the Transition of the entire knowledgebase, application (Web, Handheld device, other utility and integrations etc.), infrastructure, and services under existing application from the existing SI on or before the specified completion dates. New SI will be responsible for the overall management of the transition in accordance with the transition plan and will work to ensure the transition is completed on schedule and to identify and resolve any problems encountered. Under the handover and takeover process, the new SI should perform the following activities.

- a) Study of the technical documents and source code of the existing application.
- b) Prepare the functional system, technical and process documentation of the existing applications and processes necessary for continued operation and maintenance of the services.
- c) Submit a detailed Knowledge Transfer plan at the start of the KT phase, listing all the activities from their end, including the expectations from existing SI and the officials.
- d) Preparation of a checklist (as part of knowledge transfer plan) to ensure proper knowledge transfer. This shall be reviewed and subject to approval by the officials.
- e) The knowledge transfer shall include initial and ongoing training on existing application, training materials, operations manuals, procedure manuals, source code control and deployment/ installation guide.
- f) During the handover phase the new SI will be given a hands-on exposure to existing application by the incumbent SI. During this phase, the new SI will be in shadow and all communication will be done by the existing SI.
- g) The new SI shall validate the inventory of all project related assets (hardware and Software) as submitted by the existing SI.

4.2 Requirement Study

4.2.1 Prerequisites

The SI to follow and ensure following prerequisites before the requirement study

- a) Consultation meeting with OCAC team
- b) Identify and engage subject matter expert(s) as per the need
- c) Readiness with the industry standard template for FRS and SRS documents
- d) Readiness with the project traceability matrix template

4.2.2 Understand the Existing Applications / Databases

The SI will perform all the functions and services necessary to accomplish the transition of the entire knowledgebase, application, infrastructure and services under existing applications / databases from the present SI(s). The SI will be responsible for the overall management of the transition in accordance with the transition plan and will work to ensure the transition is completed on schedule and to identify and resolve any problems encountered. Further the SI will demonstrate its understanding of existing applications / databases and ability to support to reasonable satisfaction of OCAC, prior to the completion of Transition Phase, proving that it is ready to take over independently.

The responsibility of the SI during the phase includes following.

- a) Submit a detailed Knowledge Transfer plan, listing all the activities from their end, including the expectations from the OCAC.
- b) Preparation of a checklist to ensure proper knowledge transfer which will be reviewed and approved by OCAC.
- c) OCAC will facilitate the training on existing applications / databases, operations manuals, procedure manuals, and source code control and deployment / installation guide.
- d) Hands-on exposure to existing applications / databases would be facilitated by OCAC.

- e) The SI shall assess and validate the existing IT assets and inventories related to this project and submit its report in the gap assessment report as per the project timeline.

4.3 Technology Upgradation and change in Architecture

The SI shall upgrade the technology of the existing CM KISAN application to .Net Core and architecture of the application to Micro-Services or SOA architecture.

All the new functionalities to be developed as described in this document shall also follow the above technology and architecture. SI shall develop a new solution with new technology which satisfies all the functionalities, services, features and performance of the existing CM KISAN application and additional functional requirements/services described in this RFP.

4.4 Integration

The system should support both push and pull of data to and from systems proposed to be integrated. It is required that a standard mechanism of data exchange should be built and implemented using an industry specified data exchange protocol through a secure channel. The SI will have to co-ordinate with the designated nodal agencies for integration and OCAC will facilitate this process. In addition, the solution should be designed in such a way that any future integration does not require any changes to the system.

In the above lines, the SI is expected to manage the existing integrations (RCMS, NPCI, KO, and SPDP) and shall integrate with the following new external applications.

- a) IT payee data of PM-KISAN
- b) Farmer registry
- c) Pensioner data of HRMS (Both Government of Odisha and Government of India)

4.5 Data Migration

The selected SI will be responsible for migrating these the data from the existing application to the enhanced application.

- a) Conduct a study of existing portals (up to 10) to understand scheme flows and data structures.
- b) The department will provide coordination and access for the system study.
- c) Migrate historical databases from existing systems into ADAPT-DSS.
- d) Ensure data integrity through testing and validation of migrated data.
- e) The department will validate and provide sign-off after successful migration.

4.6 Testing

- a) Provide the testing strategy including Traceability Matrix, Test Cases and Conduct Testing of various components of the software developed / customized as per industry standards for Software Testing Life Cycle.
- b) Details of the testing strategy and approach should be provided in the response.
- c) Identify, inform regarding testing requirements along with its impacts and work in a manner to satisfy all the testing requirements by adhering to the testing strategy outlined.
- d) Ensure deployment of necessary resources and tools during the testing phases and perform solution testing based on the approved test plan, document the results and fix the bugs found during the testing.
- e) Make sure that the end product delivered meets all the requirements specified in the document.
- f) Take remedial action based on outcome of the tests.
- g) Provide complete support to the departmental officials or their representatives at the time of User Acceptance Testing (UAT).
- h) Ensure that all issues raised during UAT are closed and signed-off from respective authority.
- i) Ensure that each module & features developed under this RFP is tested as per the latest version of the IEEE 730 (Software Quality Assurance Processes) standards and comply with GIGW guideline.

4.7 Cyber Security Audit

- a) The SI shall ensure that the solution is in compliance with the CERT-In Security Policy and Guidelines.
- b) The SI shall appoint CERT-In empanelled auditor who shall be responsible for performing the security audit of the solution.
- c) The cost of audit & rectification of non-compliances shall be borne by the SI
- d) Carryout security audit before go-live of application and obtain the safe-to-host certification.
- e) Conduct periodic audit & certification as and when it is required as per the OSDC/Cloud policy.
- f) The audit shall be performed at least on the below mentioned aspects.
 - i) Functional Testing
 - ii) Accessibility Testing
 - iii) Application Security Audit
 - iv) Vulnerability Testing
- g) The illustrative deliverables for this activity are mentioned below

Activity	Responsibility
First Round Audit Report	Auditor
Rectified solution and submission of next round of audit	SI
Next Round Audit Report	Auditor
If required, rectified solution & submission of next round of audit	SI
Compliance Confirmation	Auditor

4.8 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.

4.9 Deployment & Configuration

The System Integrator (SI) will be responsible for deploying new features and changes to the existing application using the hardware infrastructure provided by the Odisha State Data Centre (OSDC). Key responsibilities include:

- a) **End-to-End Management:** The SI is accountable for the complete management of hosting and deployment of the application, which is already deployed on the OSDC's hardware infrastructure.
- b) **Configuration, Installation, and Hosting:** The SI will configure, install, and host the application in a High Availability (HA) mode at OSDC, ensuring that the system remains accessible and operational even during failures or maintenance.
- c) **Disaster Recovery (DR) Compliance:** The SI must ensure that the deployment process complies with the Disaster Recovery (DR) policy set by OSDC, ensuring system resilience and business continuity.

4.10 UAT and Go-Live

After the completion of the development work for the application, the Department of Agriculture & Farmers' Empowerment (DA&FE) will conduct technical reviews of the development work performed by the System Integrator (SI) as part of the User Acceptance Testing (UAT). The SI will be responsible for:

- a) **Preparation and Submission of Test Strategy and Results:** The SI must prepare and submit the test strategy, test cases, and test results for review. This will include a comprehensive breakdown of the testing approach and the outcomes of the tests conducted.
- b) **Demonstration of Module-Wise Functionalities/Features:** The SI is required to demonstrate the functionalities and features of the application, module by module, in a staging environment to the DA&FE team.

- c) **Support for Testing:** The SI must support DA&FE and its designated authority in conducting the testing. This includes providing necessary access to the systems as required by DA&FE for testing and review purposes.
- d) **Rectification of Issues:** The SI is responsible for addressing any issues, bugs, improvements, enhancements, or up-gradations suggested by the DA&FE departments during the UAT phase. The SI must resolve these issues without any additional cost.
- e) **Incorporation of Suggestions and Hosting in Production:** After incorporating all the suggestions made during the UAT phase, the SI must host the application in the production environment. Once the application has achieved a certain level of transaction and has undergone successful UAT, the go-live phase will be declared.

4.11 Engagement of System Support Team (SST)

The System Support Unit (SST) shall work onsite at Krishi Bhawan under the supervision of Director of Agriculture and Food Production. A&FE Department, Govt. of Odisha shall provide required sitting arrangement, LAN connection (with internet), intercom, printer with consumables etc. required for day-to-day official work for the resources. However, the service provider shall provide laptop to the resources.

The bidder should provide the CVs of the resources to be deployed in System Support Team (SST) in technical bid for evaluation. The proposed resource should be present during the technical presentation. The authority reserves all the right to discuss/ask questions to the proposed resources during the presentation.

The successful bidder must deploy only those candidates those CVS were submitted during bid evaluation. No changes will be allowed within 6 months from start of the assignment. However, replacement is allowed in case of resignation or medical exigencies of personnel subject to furnishing of appropriate relieving certificate.

Manpower to be deployed by SI for SST shall comply with minimum qualification as mentioned below.

4.11.1 Business Analyst

Parameter	Requirement
Education & Experience	<ul style="list-style-type: none"> – B. Tech in (Computer Science or IT) / Master degree in IT/ Economics/ Data Science/ Statistics/ Computer Application (MCA) preferably with MBA – Minimum 5 years' experience of demonstrable experience in programme management/monitoring and evaluation. – Experience of working with central and/or state Governments will be preferred – Must have proficiency in Odia language – Leadership skills to manage various stakeholders – Desirable: - Experience of working with Central and/or State governments will be preferred
Key Responsibilities	<ul style="list-style-type: none"> – Manage and supervise the consultant team to ensure quality outputs – Responsibility of planning, coordinating, implementing and monitoring the activities of the project – Ensure 100% delivery against planned project results and financial delivery targets in the work plan. Closely track slippage against work planned take corrective action – Develop overall project annual work plan in consultation with Department, monitor activities of the project and ensure accurate and timely reporting to State. – Undertake review meetings with partners and field visits to track progress made in implementation of the project and take corrective action as required. – Review quality and consistency of reports and deliverables by partner institutional responsible parties including financial reports from all project partners.

Parameter	Requirement
	<ul style="list-style-type: none"> – Provide inputs to Monitoring and evaluation officer – Collate and analyze data related to the scheme – Perform any other tasks consistent with the level of the post and/or assigned by the Department – Address the queries received from the field officials related to the scheme in time

4.11.2 Database Analyst

Parameter	Requirement
Education & Experience	<ul style="list-style-type: none"> – B.Tech in (Computer Science or IT) / Master degree in Economics / Data Science / Statistics / Computer Application (MCA) preferably having experience in data analysis – Minimum 5 years of relevant experience in use of statistical data analysis software – Experience of working with central and/or state governments/ international agencies/on similar assignments will be preferred.
Key Responsibilities	<ul style="list-style-type: none"> – To design, develop and maintain a database of relevant statistics in order to collate and disseminate credible information, analysis and report on the social economics and environmental development – Report on the identification of key indicators, quality assessment of the indicators – Analyse and review the data to support M&E specialist. – Continuous compilation and updating of relevant data – Assist in data collection and information gathering to support CM-KISAN – Coordinate the creation and updating of database – Contribute to data validation policies and procedures

4.11.3 Subject Matter Specialist (Agriculture)

Parameter	Requirement
Education & Experience	<ul style="list-style-type: none"> – Graduation in Agriculture – Retired agriculture personnel having 25 to 30 years of service experiences in different capacities under the Agriculture Department of the State Government – Having basic knowledge in computer operation with M.S Word/ Excel/ Power point etc. to perform all official work smoothly. – Having adequate experience on preparation of audit compliances/ point wise comments on legal issues related to the scheme/ preparation of answers to different RTI questions etc. – Desirable experience- Relevant experience at the state or national level dealing with farmer centric DBT scheme involving huge beneficiaries. Experience on handling legacy issues
Key Responsibilities	<ul style="list-style-type: none"> – To prepare compliances on audit related matters – To prepare point wise comments on different legal cases of Hon'ble High Court, Lokayukta, Human Right Commission etc. related to the Scheme matters – To prepare answers to different RTI questions / Jana Sunani & Public grievance applications etc. – To participate in preparation of different SOP, Guidelines, Budgeting, Report & returns – To prepare press notes, success stories of the scheme – Skill in preparation of official drafts / notes both in Odia & English language

Note:

1. The bidder should furnish the CV of proposed resource in technical bid.
2. The proposed resource should be present during the technical presentation.

3. Authority reserves all the right to discuss/ask questions to the proposed resources during the presentation.

4.12 Post Implementation Support

4.12.1 Application Maintenance

- a) Fixing of bugs & error as and when required in the existing & new modules developed
- b) Preparation of payment files for disbursement of assistance
- c) Upgradation with SBI payment gateway as and when required
- d) The defects will be covered which occurs due to development error(s)
- e) Minor changes to the business process will be addressed except new table, database, etc.
- f) Maintaining the updated version of source code
- g) Tuning of the system to improve performance
- h) Quality audit compliance (if applicable)
- i) Enhancement of MIS report as per the requirement
- j) Database query report management on emergency
- k) Optimization of the already developed reports
- l) Tuning of transactions
- m) User & access management

4.12.2 System Support

- a) Provide integration and user support on all supported servers, data storage systems
- b) Management & monitoring of server infrastructure in cloud & Odisha state data centre
- c) Installation and re-installation of the database
- d) Application load balancing and database clustering
- e) Network configuration
- f) Perform Database, event & system log analysis
- g) Database log management

- h) Database & file back-up
- i) Patch update

Apart from above, the offsite team will also supervise the work of onsite team as per Software Development Life Cycle (SDLC) process.

4.12.3 Operation Support

- a) Provide support for user registration and access management
- b) Provide guidance to resolve any wrong entry
- c) First level analysis of the query and provide required clarification
- d) Communicate the query to the application support team for resolution, if unable to provide required support for query resolution
- e) Provide required reports to Government/department for smooth Implementation of the program

4.12.4 General Application Enhancement

- a) Design related modifications
- b) Provision to upload images and scanned documents
- c) Additional search parameters for ease of searching of beneficiary list.
- d) Modification the existing data list viewing criteria
- e) Use of additional validation for data authentication
- f) Any other minor enhancement of existing modules as per the requirement of the department.

4.13 Guiding Principles

The solution should adhere to the following principles.

4.13.1 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)

4.13.2 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.

4.13.3 Integration

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

4.13.4 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.

4.13.5 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

4.13.6 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.

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

<i>Component</i>	<i>Standards</i>
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 DeITY.

4.14 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.

5 General Terms

5.1 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 FRS/SRS/Scope document mentioned in this RFP. It may also be required to develop new software modules beyond the coverage of FRS/ 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**: SI will analyse the changes suggested and submit an effort estimation including timeline to DA&FE/OCAC
 - ii) **Approval**: DA&FE/OCAC shall do the due diligence and provide approval on the effort and timeline suggested.

- iii) Incorporation: After receiving the approval from DA&FE/OCAC, team will incorporate the changes in the application.
- iv) On approval, SI shall deliver the services and raise the claim as per actual according to the Commercial Bid.

5.2 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 SI 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.

5.3 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.

5.4 Expected Project Timeline

SI#	Milestone	Timeline
a)	Engagement of System Support Team	Within 7days from date of work order and for a period 24 months
b)	Handover & Takeover process	Within 2 weeks from the effective date of contract
c)	Application Maintenance Support of the existing Application	From the date of completion of Handover & Takeover process till go-live of the enhanced system
d)	Submission of System Requirement Study document	Within 4 weeks from the effective date of contract
e)	Completion of design and development of the Technology and Architecture Upgradation	Within 10 weeks from the effective date of contract
f)	Integration with External Application	Within 10 weeks from the effective date of contract
g)	Completion of User Acceptance Test (UAT) of the enhancements	Within 11 weeks from the effective date of contract
h)	Cyber security audit certification, configuration & go-live the Application	Within 12 weeks from the effective date of contract
i)	Post Implementation Support	21 months from the date of go-live

5.5 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 SI during the contract period.

SI#	Major Area	Parameter	Requirements	Penalty
a)	Availability of application	Application covering all the features	98% availability round the clock and Computation	Up to 90-97.99% - 1% of application development cost.

SI#	Major Area	Parameter	Requirements	Penalty
			will be done on monthly basis. Note : Fault at application level only	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 operation and maintenance support cost of respective QGR. Maximum ceiling of the penalty will be 10% cost of the operation and maintenance support of respective year.

5.6 Waiver of Penalty

If at any time during the contract, the selected SI should encounter conditions impeding timely performance of service, the selected SI 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 SI's notice, OCAC shall evaluate the situation and may at its discretion waive the penalty on the request of the selected SI.

5.7 Bill of Material & Quantity

Sl#	Category	Items	Qty				
a)	Handover / Takeover and Application Maintenance and Support of the existing Application	As per the scope mentioned under the relevant clause(s) of this document.	2 weeks				
b)	Implementation of Enhancements, Technology / Architecture Upgradation	Study, design, development, security audit, training, go-live, documentations, etc. as per requirement mentioned under the relevant clause(s) of this document.	Lump Sum				
c)	Integration with External Application/ Database.	Integration <ul style="list-style-type: none"> • IT payee data of PM-KISAN • Farmer registry • Pensioner data of HRMS (Both GoO and Gol) 	Lump Sum				
d)	Post Implementation Support	As per the relevant clause(s) of this document.	21 Months				
e)	Security Audit of the application by CERT-IN empanelled agency/auditor	As per the scope mentioned under the relevant clause(s) of this document.	4 times				
f)	SSL certificate	As per the scope mentioned under the relevant clause(s) of this document.	2-Years				
g)	System Support Team (SST)	SST as per scope mentioned under the relevant clause(s) of this document with flowing quantity <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Business Analyst</td> <td>1</td> </tr> <tr> <td>Database Analyst</td> <td>1</td> </tr> </table>	Business Analyst	1	Database Analyst	1	24 Months
Business Analyst	1						
Database Analyst	1						

Sl#	Category	Items	Qty
		Subject Matter Specialist (Agriculture)	1

5.8 Payment Terms

5.8.1 Implementation and Support

Sl#	Milestone	Deliverables	Payment Terms
a)	Takeover and Maintenance of the Existing CM KISAN Application	Self Declaration by the bidder	100% of the cost of this component
b)	Upgradation of Technology and Architecture of the Existing CM KISAN Application	Go-live Certificate from Agriculture & Farmers' Empowerment Department	<ul style="list-style-type: none"> • 80% of the cost of this component to be released after go-live • Balance 20% of Upgradation cost equally divided in 4-quarters (first year)
c)	Integration with External Systems	UAT Report from Agriculture & Farmers' Empowerment Department	<ul style="list-style-type: none"> • 30% after HRMS integration (Both goO and Gol) • 40% after Farmer Registry integration • Balance 30% of payment to be released after Income Tax integration
d)	Go-live the Enhancements	Go-live certificate	20% of Upgradation cost
e)	Post Implementation Support	Activity report	– 100% of Post Implementation Support cost of the new version of

SI#	Milestone	Deliverables	Payment Terms
			Application equally divided by duration (quarter)
f)	Engagement of System Support Team	Activity report approved by Agriculture Department	100% cost of resource cost for each 3 months paid in quarterly basis
g)	Change Request Management	Go-live certificate	100% payment upon go-live of the changes
h)	Security Audit of the complete application	Safe-to-Host certificate by the CERT-IN empanelled agency/auditor	100% of the Cyber Security Audit cost
i)	Configuration of SSL certificate and it's renewal year on year	SSL configuration report	100% of the SSL cost

5.8.2 Recurring Expenses

Expenses incurred for SMS, Email would be reimbursed as per actual basis. So the SI will take prior approval from OCAC on the tentative requirement along with the estimate before purchase of these services.

5.8.3 General Conditions

- a) Payment schedule - Payments to the SI after successful completion of the target milestones (including specified project deliverables), would be made as under: -
- b) The supplier's/ selected SI'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 SI/authorized partner, and the purchaser has accepted it.
- d) The currency or currencies in which payments shall be made to the supplier/ selected SI under this Contract shall be Indian Rupees (INR) only.
- e) All remittance charges will be borne by the supplier/ selected SI/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 subject to penalties, if any.

6 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 SI 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 SI. 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.