REQUEST FOR PROPOSAL

SELECTION OF IMPLEMENTING AGENCY FOR DESIGN, DEVELOPMENT, IMPLEMENTATION AND MAINTENANCE SUPPORT OF HIGH SCHOOL TRANSFORMATION (HST) PROJECT UNDER 5T INITIATIVE FOR S&ME DEPARTMENT, GOVERNMENT OF ODISHA

RFP No.: OCAC-TE-03/2022/ENQ/23047

Volume II	Terms of Reference

ODISHA COMPUTER APPLICATION CENTRE

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1. Glossary of Terms

ATS	Annual Technical Support
CPU	Central Processing Unit
CBT	Computer Based Training
AMC	Annual Maintenance Contract
FRS	Functional Requirement Specification
HLD	High Level Design
HR	Human Resource
ICT	Information Communication Technology
ISO	International Organization for Standardization
IT	Information Technology
KB	Kilobytes
LLD	Low Level Design
LOI	Letter of Intent
MIS	Management Information System
Nos	Numbers
OCAC	Odisha Computer Application Center
OSDC	Odisha State Data Centre
OSEPA	Odisha School Education Program Authority
QR Code	Quick Response Code
RFP	Request for Proposal
RTI	Right to Information
SDLC	Software Development Life Cycle
SI	System Integrator
SLA	Service Level Agreement

2. Background

5T propel Odisha's Governance. They are transparency, teamwork, technology, and timeliness – leading to transformation. The state has adopted the '5T' agenda to transform governance in all departments by bringing about big, transformational, institutional-level changes, and not incremental makeovers. It will build an ecosystem of effective public office that is transparent concerning its functions, expenditures, targets, tenders and contracts. It is also collaborative and communicative, leveraging the experience and skill of individual officers in the team. It uses technology to inform citizens, improve the delivery of services and receive their feedback. Such a governance system is, therefore, transformative for citizens. The 5T framework helps the government reduces information asymmetries existing in the society.

High School Transformation Initiative under 5T

With an aim to ensure better service delivery to public in secondary education sector, State government has approved 5T action plan for the School & Mass Education Department. The focus is on upbringing students in an environment to reflect on their actions and how they impact the global and local community, as well as how to learn from the community around them. This transformation will lead to:

a. Improved Academic Achievement
b. Enhance Mental and Emotional Well-Being
c. Increased Problem-Solving Ability
d. Reduced Impact of Inequities

2.1 Objective

The High School Transformation Initiative which will be a part of Unified Automation System aims to achieve the set objectives through development and implementation of **Mukhyamantri Shikhya Puraskar and Fund Management System**.

3. Scope of Work

3.1 Overview

a. Design & Development of unified Web Portal needs to be designed for Mukhyamantri Shikhya Puraskar and Fund Management System under High School Transformation (HST)-5T projects.
b. Further, all activities of High School Transformation under 5T shall be routed through this web portal which will also have mechanism for report generation for monitoring.
c. Study, development and implementation of new modules/ features as per requirement of OSEPA/ S&ME Department, based on agreeable terms and complying with Change Management Procedures.

d. Application Maintenance Support of the new version of the application portal after it's go-live.
e. Integration with Unified Automation System (UAS).

3.2 Requirement Study

3.2.1 Prerequisites

The System Integrator (SI) shall perform the detailed assessment of the solution requirements as mentioned in this section. Based on the understanding and its own individual assessment, SI shall develop & finalize the Functional Requirements Specifications (FRS) and the System Requirement Specifications (SRS) in consultation with OSEPA/School & Mass Education (S&ME) Department /OCAC. While doing so, SI at least is expected to do following:

a. The SI or shall liaise with End User/ OSEPA/ School & Mass Education (S&ME) Department/ OCAC.
b. The SI shall translate all the requirements mentioned in the document into System Requirements
c. The SI shall follow standardized template for requirements capturing
d. The SI must maintain traceability matrix from SRS stage for the entire implementation

3.3 Deployment and Configuration of HST Project on State Data Centre

3.3.1 Hardware infrastructure

a. Post award of contract, SI will be expected to submit detail hardware sizing. Based on sizing of the hardware by SI, additional hardware (if required) will be arranged/procured separately by OCAC.
b. SI shall provide necessary support for configuring the hardware / licenses provided by OCAC to host the new version of the application.
c. Recommended physical and IT infrastructure (Hardware & Network etc.) at the schools, blocks, districts and central headquarter for smooth working environment will be provided by OCAC / OSEPA/ S&ME Department.

3.3.2 Cyber Security Audit

a. SI needs to ensure that the solution is in compliance with the CERT-In Security Policy and Guidelines.
b. SI shall appoint CERT-In empaneled 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 System Integrator.

d. Carry out security audit before Go-Live of application and obtain the safe-to-host certification
e. Carry out the annual periodic audit & certification as per the OSDC policy.

3.3.3 SSL Certification

The SI 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

3.3.4 Application Deployment

SI shall deploy new version of the application over the hardware infrastructure along with provision of DR as provided by OCAC, along with end-to-end management of hosting and deployment of the application, configuration and installation in High Availability mode. SI should also submit Monitoring Logs of the Compute periodically.

SI to submit Application access credentials post deployment for relevant Stakeholders with OCAC.

3.4 Capacity Building

a. SI is required to undertake training in Train-the-Trainer mode.
b. 1 day Overview Training to be conducted at State Headquarter, District Headquarter & Block Headquarter for respective officials and application users
c. OCAC/OSEPA/ S&ME Department will facilitate the training space & related logistics i.e. Physical and IT infrastructure for attendees during the Capacity Building Session
d. The schedule / training calendar and the training material for imparting training shall be developed by the SI in consultation with OCAC , OSEPA & S&ME Department.
e. The SI shall submit a copy of the Training material to OCAC before training session.
f. If required, SI may conduct the training on virtual mode as well.

3.4.1 Online Help / Reference with Search Option

a. 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 for their own personal reference as and when needed.
b. It is required that the downloadable training content should have proper indexing and internal references, mapped with key words, in order to allow any user to search and reach the desired content with the help of key words.
c. Training Content may also be available online so as to keep the Users abreast with the latest changes in the application from time to time.

3.5 Post Implementation Support

a. SI shall provide annual support for a period of **3 years** during Post Implementation Phase after Go-Live. And that can be extended for another 2 years upon satisfactory performance on the same derived rate on approval.

b. Application support includes monitoring, troubleshooting and addressing the availability and performance issues, implementing the change management etc.

c. SI shall keep the application software in good working order, perform changes (as per change management) and upgrades to applications as requested by OSEPA, S&ME and OCAC.

d. SI shall address all errors / bugs of the solution implemented (vis-à-vis the approved FRS) without any additional cost during the support phase.

e. Issue log for errors and bugs identified in the solution and any change done in the solution shall be maintained by SI and periodically submitted with OCAC.

f. Periodical Report about Progress in the Project to be submitted with OCAC/OSEPA/ S&ME highlighting Tasks Accomplished, In Progress, Not Started, Expected Time of Completion, Issues faced during the period and resolution status thereof, Risks/ Assumptions/ Mitigation points, Lessons learnt etc. This report to be submitted with OCAC/OSEPA/ S&ME periodically. Key Contact Persons involved in the Project should be recipients of the Periodical Progress Report.

3.6 Adherence to Standards

The system shall comply with relevant defined industry standards wherever applicable. This will apply to all relevant aspects of the solution including but not limited to 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, systems of other user departments etc.) including loose/ tight integration with backend systems of other departments depending on individual service processes. The solution architecture should thus have provision to cater to the evolving requirements of OSEPA / S&ME Department.

A reference list of the minimum industry standards which the system components should adhere 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/ CMM/ ISO Specifications for documentation
Data Standards	All-important data entities should be in line with standards published by MeiTY.

3.7 Security, Integrity & Confidentiality

a. ***Web Services Security:*** System shall comply with all the Web Services including routing, management, publication and discovery which should be carried out in a secured manner. Data Encryption at Application level and SSL security at Server level is essential.

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. Audit Trail should be embedded in the application for all bona fide users.

c. ***Transactions and Communication:*** With respect to the Data Transactions and Communication, system needs to ensure that the business processes are executed properly and flow of operations are executed as per configured workflow, application accessed by bona fide users with valid signatures.

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. The 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 such as direct access to database, access to database through application, access to log files, access by the remote terminals, DBA controls, Backup / restore policies and procedures.

3.8 Change Management Procedure

The purpose of Change Management is to ensure the agility of the newly developed applications to embrace the business changes in hassle free manner. Following are the indicative scope for change request.

a. Application enhancement that will impact the business process and database
b. Development of new forms and reports
c. New integration features
d. Maintaining version of the code & artifacts for configuration management, audit and future reference.
e. Provide refresher training if needed for the change implemented in the system

OSEPA / S&ME Department shall nominate a single point of contact who will coordinate with the SI for changes or suggestions received from end users. Required servers, software licenses, network, computing infrastructure etc. for creation of development environment, staging environment and production environment will be the responsibility of the SI with the necessary support of OCAC.

Deployment/ Customization/ Configuration of the application will be done as per approved FRS/ SRS. Thereafter, any change requests received from OSEPA / S&ME Department during the Support period will be implemented by the SI at extra cost based on agreed terms and conditions.

There should be a Web based Ticketing Tool to raise, execute, monitor and close through the application. It should be accessible to the relevant stakeholders during the tenure of the project.

3.9 Exit Plan

a. The selected firm will provide systematic Exit Plan and conduct proper knowledge transfer process to handover operations to Technical Team in Production Environment at least three months before project closure. All knowledge transfers should be documented.
b. SI will ensure capacity building of Technical Team nominated by OCAC/OSEPA/S&ME Department on different documentation on maintenance of the application software and IT infrastructure (if any) provided under this contract.

3.10 Project Documentation

The Service Provider will share below list of documents to OCAC during the project contract period.

a. Latest version of Source Code
b. Functional Requirement Specification (FRS)
c. Software Requirement Specification (SRS)
d. Project Plan

e. Safe-to-host certificate
f. Issue Logs
g. Data Migration Report
h. User Training Manual
i. Application Installation & Configuration Manual
j. Report of Security Audit & Safe-to-Host Certificate
k. Project Management documents defined under Timeline & Tentative Deliverables
l. Project Progress Report

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

4. Functional Requirements

4.1 Multi-level OTP Based user login

OTP (One-Time Password) based user login is a secure authentication mechanism used in software applications to enhance the security of user accounts. OTPs provide an additional layer of protection by requiring users to enter a unique password that is valid for only one login session or a limited period. SSO system can be configured to use as the primary authentication source, allowing users to access multiple applications and systems using a single set of credentials. The following processes will be followed as a part of OTP based login:

a. OTP Generation and Delivery:
    i. The application generates a one-time password (OTP) and associates it with the user's account.
    ii. The OTP is sent to the user through a predefined communication channel (e.g., email, SMS, mobile app notification).
b. OTP Verification:
    i. Users receive the OTP and enter it into the application.
    ii. The application verifies the entered OTP against the associated OTP stored in the user's account.
    iii. If the OTP is valid and matches the stored OTP, the user is granted access to the application.
c. Session Management:
    i. Once the user is successfully authenticated, the application creates a secure session for the user.
    ii. The session is maintained throughout the user's interaction with the application, and the user remains logged in until they explicitly log out or the session expires due to inactivity.

4.1.1 User Authentication and Login

a. Users authenticate themselves using their credentials (e.g., username and password) provided during registration.
b. The admin sets up appropriate authentication mechanisms, such as multi-level OTP-based user login or traditional username/password authentication.

4.1.2 User Roles and Permissions

a. Admins assign roles to users based on their responsibilities and access requirements within the application.
b. Each role is associated with a set of permissions that define what actions and features a user can access.

4.1.3 User Profile Management

a. Admins have the ability to view and update user profile information, such as name, contact details, and other relevant data.
b. Admin as well as user can modify user account settings, including password resets or updating user preferences
c. Admin can also enable/disable accounts.

4.1.4 User Activity Monitoring:

a. Admins monitor user activity to ensure compliance, security, and identify any suspicious behavior.
b. They may review logs, track user actions, and generate reports to audit user activities within the application.

4.2 School Search and filtration

In the software application, there are different user roles with varying access and filtering capabilities for managing school data. These user roles enable hierarchical access and filtering capabilities, allowing users at different levels of the administrative hierarchy to manage and view school data relevant to their jurisdiction. The filtering options based on district, block, and gram panchayat enable more granular searches within the application, ensuring users can retrieve specific subsets of school information as needed.

4.3 Manage school level Stakeholders

Managing school-level stakeholders in a software application involves maintaining and organizing information about individuals or groups involved in the school community. The headmaster & SDMC module enables managing the school information as well as school development management committee information.

a. The school user would have provision to add their school headmaster detail information in the application.
b. Similarly, the user would have provision to add their SDMC detail information in the application.

4.4 Asset Register and Maintenance

The asset management module in the software application enables the headmaster or authorized user to update the school's current asset details. Here's an overview of the features and functionalities provided by this module:

4.4.1 Categorization / Addition and Update of Assets

The user can categorize assets in the application based on predefined categories. This helps in organizing and managing assets effectively.

4.4.2 Managing AMC Assets

For assets under Annual Maintenance Contract (AMC), the user can store additional information such as installation date, expiry date, and serial number of the assets.

4.4.3 Asset Maintenance Details:

This module allows the user to update maintenance details for assets that require repair.

4.4.4 Repair Assets

a. The user can add assets that require repair under the repair section.
b. Information such as the number of assets needing repair and their repair status can be recorded.
c. The status options may include repairable, for auction, for dismantle, for recycle, and for disposal.

4.4.5 AMC Assets

Within the application, users have the ability to include assets that fall under an Annual Maintenance Contract (AMC) in the designated "In AMC" section. This feature enables users to track and manage assets covered by maintenance agreements more effectively. Similar to assets in need of repair, users can input details regarding the quantity of assets requiring maintenance and their respective status.

The status options for AMC assets encompass various possibilities such as repairable, intended for auction, earmarked for dismantling, slated for recycling, or designated for disposal. By providing these options, the application empowers users to accurately document and monitor the condition and fate of AMC assets. This comprehensive approach to asset management ensures that all pertinent information is readily available, enabling users to make informed decisions regarding maintenance, disposal, or potential resale of assets covered by maintenance contracts.

The asset management module provides a comprehensive system for updating and maintaining the school's asset details. By categorizing assets, tracking their condition, and managing repair or AMC status, the user can effectively monitor and maintain the school's assets, ensuring their longevity and proper functionality.

4.5 Tracking of Login History

This module stores the detail login history of all the users present in the application.

a. The state user would have provision to track detailed information of login access for all the users present in the application.
b. The detailed information would be which user logged in to the application, which type of user logged in to the application, browser name, IP address, date & time of login & date & time of logout.
c. Facility to filtration of data based on different required user type.

4.6 Smart Classroom (Part of Asset Management)

All schools will be equipped with smart classrooms. The classroom interiors will be upgraded through standardized paint, furniture and fixtures and classroom walls to be used as learning tools.

a. The school user would have provision to add total number of schools and total number of smart classrooms in the application.
b. The block user will physically verify and can give the physically verified data to the application.

The block user will update that all the smart classrooms are upgraded through standardized paint or not, all the smart classrooms are upgraded through furniture and fixtures paint or not, classroom walls are used as learning tools or not.

4.7 Computer Laboratories (Part of Asset Management)

A computer laboratory is important in every school to enhance the scientific and technological research and invention capacity of students.

a. The block user will physically verify and can give the physically verified data to the application.
b. The block user will update that laboratories are well resourced or not, laboratories are used regularly or not, and laboratories are maintained regularly or not.

4.8 Toilets

Ensuring availability of toilets in the school premises.

a. Toilets should be available in all the schools and availability of toilets should be added by the concerned school user.
b. Toilet parameter should be followed in all the schools such as availability of urinal and cleaned properly.
c. The above toilet parameter should be verified in the application by the block user once the physical verification is done at the school level.

4.9 CWSN Infrastructure

Children with Special Needs (CWSN) are those who have some type of disability and require exceptional care and extra help.

a. The state user would have provision to create a category for CWSN children asset.
b. Resource room, separate toilets, handrails, ramps to be added under the asset category.
c. The school headmaster will be added the number of CWSN children's related infrastructure in the application.
d. CWSN parameter should be followed in all the schools such as clean and separate toilets are available or not, handrails are available or not, ramps are available or not.
e. The above CWSN infrastructure parameter should be verified in the application by the block user once the physical verification is done at the school level.

4.10 Awards & Incentives

The Mukhyamantri Shikhya Puraskar is a humble initiative to offer such commendations and recognize the value of meritorious students not only in the field of academics but also in extra-curricular/co-curricular fields. In addition, it highlights the good work of educators in government and govt. aided schools who not only help in creating informed and active citizens but also go beyond their duty to inspire students to aspire and dream for greater heights. The initiative also acknowledges the contribution of stakeholders who act as the biggest support system in transforming dreams into reality and meaningfully connect and communicate with the schools with their commendable contribution in mediums manifold.

The objective of Mukhyamantri Shikhya Puraskar is to make the educational ecosystem aspirational by incorporating recognition & reward for all stakeholders, preparing educational leaders by enhancing performance & talent, bringing harmony & synergy through community engagement, and creating healthy competitiveness among schools and administrative units for better educational outcomes.

The awards shall be in two categories (Individual Award & Institutional Award). The input will be given at different level based on the award type and to generate each award, the system will have a workflow system for scrutinisation, approval of data related to the user's performance based on the rubrics.

The objective of this area is to make educational ecosystem aspirational by incorporating reorganization & reward for all stakeholders, preparing educational leaders by enhancing performance & talents, bringing harmony & synergy through community engagement and creating healthy competitiveness among school and administrative units for better educational outcomes.

a. The award shall be in two categories; 1. Institutional award (cash) for administrative units, 2. Individual awards in form of cash & scholarship for students and in form of salary increment & professional development for officials, HMs, teachers, and community.
b. The institutional award shall be based on performance of the schools. Top performing districts and blocks across the state shall be selected for award.
c. To motivate in ground level, the schools level shall be awarded in 3 level, at the state level school award top 100 schools across the state shall be selected as per school scorecard, in the district level school award top 10 schools will be awarded and in block level school award top 3 schools will be awarded.
d. To motivate individual students, they shall be awarded at the state, district & block level based on their academic performance and parental economic status. Student will be awarded at only higher level if he/she is eligible for more than one level based.
e. To motivate the leadership team including the stakeholders & community will be awarded.
f. Subject-wise teachers shall be awarded.

Awards will be approved via an automated system taking data from input forms and other dependent systems.
Note: Details of award will be defined during the SRS

4.11 Reports

Taking all the input parameters, the application would have facility to generate different types of reports as per departmental requirement.

Different level users will be able to view/ download reports as per the specifications decided by the department.

4.12 Dashboard/Visualization Tool

The dashboard is an indispensable platform that provides a comprehensive and easily accessible overview of important information for better decision-making. Its primary purpose is to offer data transparency, presenting unbiased and easily understandable data through user-based dashboards and analytical tools, allowing for the visualization of key performance indicators.

The interactive nature of the dashboard enables users to navigate and explore data effectively. It incorporates various modules to cater to different aspects of the system.

One such module is the Asset Status, which displays the total number of schools and assets across them. Users can filter the data school-wise and view the distribution of assets needing repair through a pie chart, categorizing them as repairable, auction able, dismantled, recyclable, or disposable. Similarly, another pie chart showcases the status of assets that have been repaired, auctioned, dismantled, recycled, or disposed of. Additionally, the dashboard provides information on Asset Maintenance Contracts (AMCs), including due dates, and tracks asset modifications, along with relevant details such as the school's Headmaster (HM) name.

In summary, the dashboard serves as a powerful tool by integrating multiple modules that provide a comprehensive view of crucial data. It promotes data transparency, facilitates informed decision-making, and acknowledges the accomplishments within the educational system. The user-based design, interactive features, and visualization capabilities make the dashboard an essential platform for monitoring and improving educational performance.

4.13 Admin Console

An admin console enables administrators and other application users to conduct various tasks like creating of users, managing of user credentials, and controlling certain application processes.

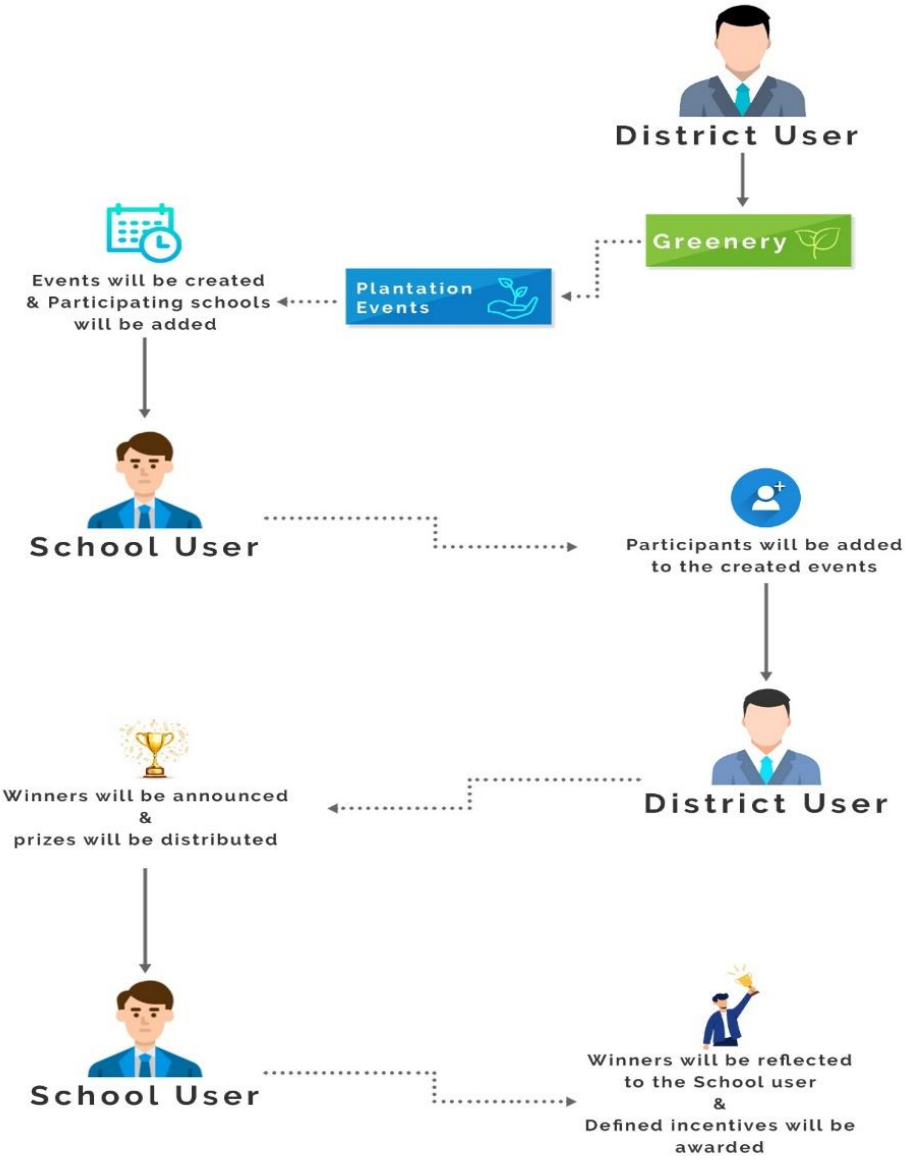
a. Provision to create users.
b. Tagging user types with user.
c. Provide access rights to the users.
d. Creating and managing the login credentials.
e. Provision to import excel-sheet data.

4.14 Integration with Third Party tool

Third party application & other schools shall be seamlessly integrated with the new application to facilitate smooth communication and data flow. The integration is dependent on the inputs needed to the application.

The proposed system will be smoothly integrated with the **School Unified Automation System** to ensure seamless communication between the two applications. An API will serve as the interface, facilitating efficient and effective communication between them. Further details regarding this integration will be analyzed and documented in the SRS (Software Requirements Specification) document.

4.15 Data Flow Diagram



4.16 Manage School for Fund Approval System

A school is an educational institution designed to provide learning spaces and learning environments for the teaching of students under the direction of teachers. This module provides the facility to add & update school identification in the application.

a. The state user is responsible to manage schools in the application.
b. The schools shall be added with information on district, block/NAC, gram panchayat, school name, establishment year, headmaster name, headmaster mobile number, SDMC president name, SDMC president mobile number, school address, & phase.
c. The state user shall have the provision to view & update the existing schools.
d. Facility to filter schools based on district, & block.

4.17 Manage Item & Budget

This module enables the management of item-wise. However, before this list can be released to the schools, it requires approval from the relevant block. This module is to be designed to facilitate the efficient handling of items and their corresponding budgets within the application.

The administrative role within this module primarily falls on the state user. One of the key responsibilities of the state user is to add and update items within the application. This involves providing information such as the item name, which serves as a unique identifier for each item. By having the authority to manage items, the state user can ensure that the list remains up to date and accurately reflects the items and their specifications.

In addition to managing the items, the state user also has the responsibility of handling the item-wise budgets. This involves adding and updating the budgets for each item within the application. When adding a budget, the state user must provide relevant information such as the item name and the allocated budget amount. This allows for effective tracking and allocation of funds for each item. Furthermore, the state user has the ability to view and update the item-wise budgets whenever necessary. This flexibility ensures that adjustments can be made as required, keeping the budgets aligned with the current needs and priorities of the schools.

4.18 Design & Development of Fund Approval System

The fund approval system module should carry out initiating an item wise fund request by the school and the request shall be forwarded to the concerned block for approval or compliances. In case of any observation of the block, the request shall be reverted back to the school along with the observation. After approval from the block officer, the concerned gram panchayat, district & state shall view the approval list.

4.18.1 Initiation of Fund Request

Roles of School

a. The school user shall be responsible to initiate a fund request under the required item.
b. The school user shall have to select the required item from the item list.
c. The system shall display the maximum amount can be requested under the selected item.
d. In case of the school user already requested the fund under the same item, the school user shall have the provision to see the rest amount of the selected item.
e. Provision to display proper message in case of the requested amount exceeds from the maximum budget and the same item will not be requested for the next 3 years.

f. The school user shall have the provision to add their remarks before forwarding to the block or NAC user for approval.
g. The system shall display the fund request status after forwarding to the block or NAC user.

4.18.2 Approval Process of Fund Request

Roles of Block & NAC

a. The block or NAC user shall login to the application by using provided credentials.
b. List of pending, approved & compliance list shall be displayed under the fund approval system module.
c. The block or NAC user shall filter the requested funds based on the school name.
d. Each fund request shall be displayed the detailed requested information along with provided remarks.
e. During verification of the fund request, the block or NAC user shall have the provision to approve or revert back to the school user along with their observations.
f. The system shall display the fund request status as per action taken by the block or NAC user.
g. If the fund is approved, the block or NAC user shall have the provision to provide remarks to the school user.

4.18.3 View all Fund Request

The application incorporates a fund approval system module that involves a multi-tiered approval process. To access the module, the user must log in using the provided credentials, ensuring secure access to the system.

Upon logging in, the respective user is presented with a comprehensive view of the fund requests. This categorization helps in organizing and managing the fund approval process efficiently. The user has the capability to filter the requested funds based on the school name, enabling focused and targeted review of requests associated with specific schools.

Each fund request contains detailed information pertaining to the request, providing the respective user with a comprehensive understanding of the nature and purpose of the requested funds. Furthermore, the current status of each fund request is prominently displayed, enabling the respective user to track and monitor the progress of the requests effectively.

The fund approval process follows a multi-tiered approach, involving multiple levels of review and authorization.

4.19 Dashboard of Fund Approval System

The dashboard serves as a comprehensive platform that gathers and presents vital information, offering users immediate and convenient access to it. Its primary function is to provide data transparency, delivering a detailed overview of the business at a single glance. To ensure effective decision-making, it is crucial that the data displayed through the dashboard remains unbiased and easily understandable.

Based on the privileges assigned, the users are granted specific views on the dashboard. They are equipped with features to monitor and analyze the fund approval process. This includes the ability to view the total number of fund requests, the number of approved funds, and the overall count of pending fund requests awaiting approval. Such insights allow users to track the progress of fund allocation and ensure timely decision-making.

Additionally, the dashboard offers a comprehensive display of item lists, showcasing the various items along with their respective estimated budgets for all schools. Users can also access information about the total budget released to schools, enabling them to gauge the financial resources allocated within the system. To facilitate efficient data exploration, the dashboard provides filtering options based on district names and school names, allowing users to examine the item-wise budget status for specific regions or educational institutions.

Furthermore, users can access a list of schools along with their corresponding budget allocations. The schools with the highest budget releases are prominently displayed, providing insights into the prioritization of resource allocation. Moreover, a search functionality is incorporated, enabling users to input specific school names and retrieve relevant information based on their search criteria. This feature enhances accessibility and streamlines the process of retrieving school-specific data.

By presenting such comprehensive and interactive information through the dashboard, users are empowered to make informed decisions and gain valuable insights into the financial aspects of the system. The unbiased nature and user-friendly design of the dashboard contribute to its effectiveness in promoting transparency, facilitating better decision-making, and ultimately driving positive outcomes for the business and its stakeholders.

Further details regarding this will be analyzed and documented in the SRS (Software Requirements Specification) document.

4.20 Reports of Fund Approval System

The proposed system includes a comprehensive reporting feature that generates various types of reports based on the specific requirements of the department. These reports are produced in both PDF and spreadsheet formats, offering flexibility and ease of use for data analysis and documentation purposes.

One of the reports generated by the system is the **"Item Wise Budget Released" report**. This report provides valuable insights into the budget allocation for different items within a specified timeframe. Users can input the desired date range, and the report will present information such as the starting and ending dates, item names, total estimated budget for each item, and the corresponding budget released during the specified period. This report enables users to monitor the distribution of funds across various items, facilitating better resource management and decision-making.

Another report available is the **"District Wise Budget Released" report**. With this report, users can input the desired date range and select a specific district to obtain a comprehensive overview of budget allocations within that district. The report includes details such as the date range, district name, item names, total estimated budget for each item, and the total budget released during the specified timeframe. By analyzing this report, users gain valuable insights into how funds are distributed across different districts, enabling them to identify trends, patterns, and potential areas for improvement.

Additionally, the system generates the **"School Wise Budget Released" report**. This report allows users to refine their analysis further by specifying the date range, district, block, and school. By inputting these parameters, users can access detailed information about budget allocations for specific schools. The report presents data such as the date range, district name, block name, school name, item names, total estimated budget for each item, and the total budget released during the specified period. This granular level of detail empowers users to closely monitor budget allocations for individual schools, facilitating better financial planning and resource utilization.

By generating these reports in both PDF and spreadsheet formats, the proposed system provides users with versatile and easily shareable outputs. The reports not only capture essential information related to budget allocations but also offer comprehensive insights for informed decision-making. The flexibility of the reporting feature ensures that departmental requirements are met, enabling stakeholders to analyze data effectively, identify trends, and make data-driven decisions to optimize resource allocation within the educational system.

In the long run, as the proposed system evolves and caters to the needs of its clients, there may arise the requirement for additional reports that are specific to their unique needs. To accommodate these requests, a systematic approach will be followed, ensuring proper analysis, preparation, and documentation of the new reports.

Further details regarding this will be analyzed and documented in the SRS (Software Requirements Specification) document.

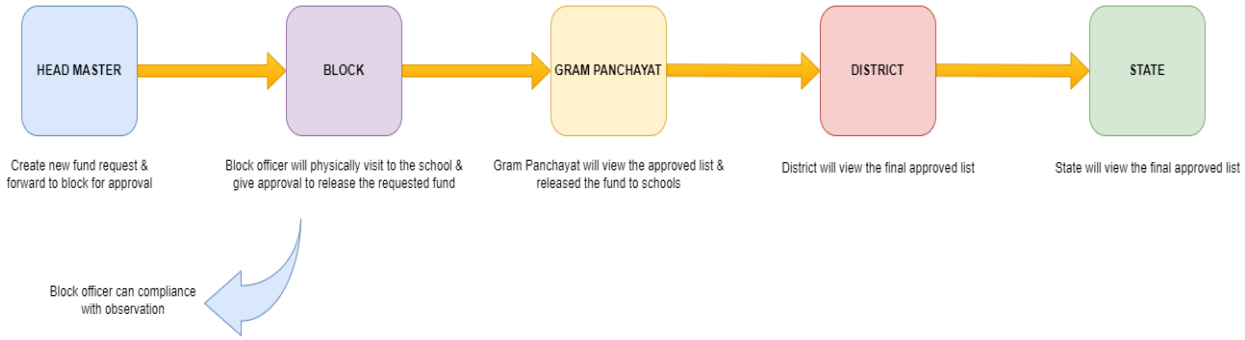
4.21 Change Password

The Change Password module in an application allows users to update their existing password. It provides a secure and straightforward mechanism for users to change their password by verifying their current password and entering a new password of their choice. This module ensures data security by allowing users to maintain control over their account access and promotes good security practices by encouraging regular password updates.

4.22 Integration & Validation

There are different sources from which the schools receive funds and also that need to be tracked and validated before each approval to understand how much fund is already approved from different sources to that particular school. Hence this proposed system needs be integrated with all different sources by using APIs to make it a unified portal where all the funds will be tracked and monitored centrally.

4.23 Basic Flow of Fund Approval System



5. Expected Project Timeline

Sl.#	Activity	Tentative Deliverables	Timeline
a.	System Study & Prototype Design	– Detailed Team Structure with team members – Point of Contact – FSR/SRS Document – Screen prototypes	T+4 Weeks
b.	Design, Development &Implementation	– Source Code – Test Plans & Test Cases – Operation Manual – FAQs – Load Testing report – Hosting in staging environment	T+ 16 Weeks
c.	UAT, Training & Go- live	– Preparation Test Cases – UAT certificate – Training to users and provide training completion report. – Movement of application from Staging to Production environment – Safe to host certificate issued by Cert-in empaneled firm	T+ 20 Weeks
d.	Operation & Maintenance	– Issue Logs – Quarterly Activities report	Three years from the date of Go-live
e.	Hand-holding support	– Monthly Attendance Sheet	One year from the date of Go-live

6. Payment Terms

Sl.#	Category	Payment Terms	
a.	Design, Development and Implementation	– 20% payment of Application development on SRS Approval – 30% payment of Application development on completion of UAT. – 30% payment of Application development onreceipt of security audit certificate and Go-Live Certificate. – Balance 20% of application development will be paid after 6 months of successful Go-Live of the application.	
b.	Operation & Maintenance	Application Support	100% cost of this item equally divided into 12 quarters
		Software Maintenance	
		System/Infra Support	
c.	Security Audit cost	100% payment on submission of Safe-To-Host Certificate	
d.	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.	Hand holding support cost	Monthly after receiving MPR	
g.	Additional Modules / Change Request	100% payment on Go-Live of the additional modules / change request upon approval	

7. Service Level & Penalty

Only the following clause is valid for Service Level & Penalty.

If the selected bidder fails to achieve the below scope of work within the corresponding Delivery Period and any extension thereof, unless such failure is due to force majeure situation or due to OCAC's default, penalty shall be imposed by OCAC on the selected bidder.

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

Sl.#	Major Area	Parameter	Requirements	Penalty
a)	Customization & Implementation	Major milestone during development and implementation as per project timeline.	As per project timeline	Rs. 500/- per daydelay
b)	Response time for bug fixing	Time taken (after the request has been informed) to acknowledge problem	Within 24 hours from the time thebug is reported.	Rs. 100/- perhour delay
c)	Resolution Time (Only for Bug fixing)	Time taken by the service provider to fix the problem	Problems with severity within 48 hours from the time of reporting.	Rs. 500/- perhour delay
d)	IT Helpdesk	Start of service	As per project timeline	Rs. 2,000/- perday delay

In case, the delay is more than 24 weeks and the cause of delay is attributable to Service Provider, authority reserves right to increase the penalty value and/ or take appropriate action against the bidder such as cancellation of contract etc.

Application Availability

The Application covering all the features shall remain operational during the scheduled operation time

Measurement	Reporting Period	Target	Penalty
Daily	Monthly	> 98%	Nil
		> 95% but <98%	0.5% of Quarterly billed value of Application Maintenance Support
		> 90% but <95%	1.0% of Quarterly billed value of Application Maintenance Support
		<90%	2.0 % of Quarterly billed value of Application Maintenance Support

a. Performance of system refers to the proper and timely functioning of the system's functionalities. The application should be available and performing as per functionalities
b. The non-availability for application service is measured on monthly basis and excluding the scheduled maintenance shutdown and incidents.
c. Application availability and performance will be monitored and reports will be generated as per the monitoring system deployed at OSDC.

7.1 General Conditions

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

b. The selected bidder'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. Approved Project Plan/ Schedule, Change Request Log, Issue Log should form the basis of release of payments. Any impediment foreseen in smooth release of payment should be covered under Risks and Assumptions. Any deviation from the agreed terms and conditions should be communicated by either party in writing so as to build trustworthy relationship during and after the course of the project

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

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

f. All remittance charges will be borne by the selected bidder.

g. In case of disputed items, the disputed amount shall be withheld and will be paid only after settlement of the dispute. Resolution of the dispute should be as per agreed terms, preferably recorded and made part of Project Documentation

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.