Request for Proposal Development of UP Health Program Aggregation Platform

DEVELOPMENT OF UP HEALTH PROGRAM AGGREGATION PLATFORM

Contents

Acronyms

- *AMC - Annual maintenance charges*
- *UPDVDMS -Uttar Pradesh Drug and Vaccine Distribution System*
- HRMS *– Human Resource Management System*
- UPHIMS *– Uttar Pradesh Health Information Management System*
- *MIS – Management Information System*
- *SC – Sub Centre*
- *PHC – Primary Health Care*
- *CHC – Community Health Care*
- *RfP – Request for Proposal*
- *IHAT – India Health Action Trust*
- *GoI – Government of India*

1. Introduction

India Health Action Trust (IHAT) aims at improving public health initiatives by supporting programs nationally and globally through comprehensive technical assistance in program planning, management and monitoring. IHAT has set up a Technical Support Unit (TSU) for the Government of Uttar Pradesh (GoUP) to provide techno-managerial assistance to improve the coverage of key reproductive, maternal, new-born, child health and nutrition (RMNCH+A) interventions and services in the state from the funding support of Bill & Melinda Gates Foundation (BMGF) through University of Manitoba (UOM), Canada.

IHAT believes that strengthening the existing health system is the best way to achieve sustained health outcomes at scale. It has developed a "theory of change" to guide its support to government in improving these health outcomes, and providing techno-managerial support lies at the core of this approach. IHAT transfers skills and knowledge to partners through embedded techno-managerial support, including hands-on orientation to gap analysis and prioritization; developing standards, systems and processes; monitoring and evaluation; and problem solving.

Uttar Pradesh as a state is comprised of 18 Divisions, 75 Districts and 825 Blocks is the most populous state in India. Health infrastructure contains public and private centres (like sub-centre, primary health centre, district hospital and common health centre etc.) at different level is the key backbone to strengthening the health ecosystem in the state. Services rendering from different sources and monitoring of them is the key challenges for better decision mechanism. To overcome this a challenge a single unified Health Program Aggregation Platform is envisaged. The UP HMIS, which was started in 2015, is designed to meet the overall data requirement of GoUP beyond which is provided by the HMIS portal of GoI. The aim of the portal is to capture, preserve and provide analytic support to strengthen evidence based review mechanism in the state of UP.

In context of above to UPTSU will identify and select an agency who can develop an enterprise level application to cater all the demand of the business requirement for Health Program Aggregation Platform.

2. Objective

The objective of developing and implementing a Health Program Aggregation Platform in state of Uttar Pradesh which are linked at multi-level facilities like DH, PHC, CHC and SC hereafter referred as Smart management to improve the quality, efficiency and effectiveness of services provided to the patients and also support continuity, consistency, planning and informed decision making for all stakeholders.

This project aims at creating ICT based Health Program Aggregation Platform to provide benefits to all stakeholders and enable the administration in improving the service delivery system across the state by.

- Use of ICT to enhance the real time information gathering and reporting for monitoring and decision making processes such as to manage performance of systems and facilities
- Automation of the workflow wherever possible and removal of manual processes and / or dependency on the human resources
- Maintaining quality of services based on defined parameter of safety and accuracy for decision
- Ensuring 100% services and data availability by automated reporting on availability of
- Crisis Management in case of emergency and efficient referral management

3. Scope of Work

The entire Scope of Work under the RFP constitutes selection of an Agency for design, development, demonstration, testing, operation and maintenance of the Health Program Aggregation Platform in the state of Uttar Pradesh.

Uttar Pradesh established routine HMIS reports by entering facility-based data into the national HMIS portal. As a step towards this, the government of Uttar Pradesh has started a process to implement State Public Health Data warehouse. Facility-based data is entered at the block level for each facility. Although the data reporting systems have stabilized, the state has initiated the process of focusing on the integration and use of data for information, action, and planning.

This section summarizes the overall scope of work that needs to be executed by the successful Agency.

A Health Program Aggregation Platform is envisaged to be a comprehensive, integrated information system designed to manage overall functioning of a government healthcare institution including facility data, program data and the corresponding service processing across timelines.

The RFP envisages the following components of work to be executed by a competent developer and System Integrator in order to fulfil the objectives of the proposed Health Program Aggregation Platform.

1. Development, installation, configuration, customization, integration, of Health Program Aggregation Platform together with the necessary database and other software
2. Implementation of Health Program Aggregation Platform according to the reference architecture, performance metrics, acceptance criteria's and conformance to industry standards including its testing and certification.
3. Operation and Maintenance of the entire Health Program Aggregation Platform   including Application for a period of two years from the date of Go-Live
4. Change Management and Capacity Building including Training of users for effectively using the system.

3.1   Detailed Description of Activities:

3.1.1 System Requirements Study and Solution Design

3.1.1.1   Project Plan and the Inception Report preparation

- The Agency shall prepare a Project Plan for the entire project

- The Agency needs to prepare and submit an Inception Report, which will serve as the foundation document for all activities related to the project. Additionally, the Inception Report must cover the risks the Agency anticipates and the plans they propose towards risk mitigation.

- The acceptance of the Inception Report by IHAT is necessary before proceeding to the next stage of the project.

3.1.1.2   System Requirement Specification (SRS)

- The indicative functional requirements are provided in coming section of the RFP for the purpose of reference only. The business logic framework for Health Program Aggregation Platform is built according to the functioning provision of IHAT and NHM in Uttar Pradesh. The Agency shall have detailed discussions with concerned stakeholders and perform complete requirement engineering processes.

- The Agency is expected to capture all findings and propositions in System Requirement Specification (SRS) document and Prototype, which shall detail the requirements of the complete solution up to the last detail. The documents should also present a clear plan of action to implement the Health Program Aggregation Platform. The Prototype shall demonstrate all the features and functions of Health Program Aggregation Platform.

Agency shall consult with the subject matter experts designated by UPTSU whenever necessary, to obtain more details on the requirements of the project

3.1.1.3   Solution Design Document preparation

The SI shall prepare a solution design document (SDD) containing:

- Complete architecture of the proposed Health Program Aggregation Platform

- Design of an audit trail capturing mechanism for all transactions (add, update and delete) using transaction log reports, so that errors in data, intentional or otherwise, can be traced and reversed, throughout the project duration.

- The security aspects, measures etc. to be deployed for the solution

- Access Controls measures - to ensure that the databases are not tampered or modified by the system operators or database administrator.

- Implementation plan for data security- to allow for changes in technology and business needs.

- Plans for various types of testing and audit as required by this RFP.

- Any other section as required in the SSD document

3.1.1.4   Prototype Development and Demonstration

- The Agency is expected to develop a prototype of Health Program Aggregation Platform based on SRS and SDD documents prepared. Prototype should consist of navigation plan of the system, data entry forms, reports and should be capable to demonstrate usability of the designed solution and the extent of meeting the aspiration of government with respect to functionalities of Health Program Aggregation Platform. The Agency may use sample data for demonstration of prototype.

- The Agency shall demonstrate the prototypes of sub-modules and mobile app of Health Program Aggregation Platform solution. The prototypes of sub-modules and mobile app of Health Program Aggregation Platform shall be considered for approval one by one as and when they are submitted for approval to UPTSU. The agency need not wait for the completion of prototype of the entire solution for the same. This will help to expedite the feedback and approval process. However, the agency shall have to demonstrate integrated functionalities and workflow across modules on the complete solution prototype when all the sub-modules are approved and accepted by UPTSU. The acceptance of the integrated functionalities and workflow shall be taken as the acceptance of prototype.

3.1.2 Application Development

The proposed workflow of the Health Program Aggregation Platform can be found below. This is a summarized version of the efforts to be undertaken by the while developing the platform:
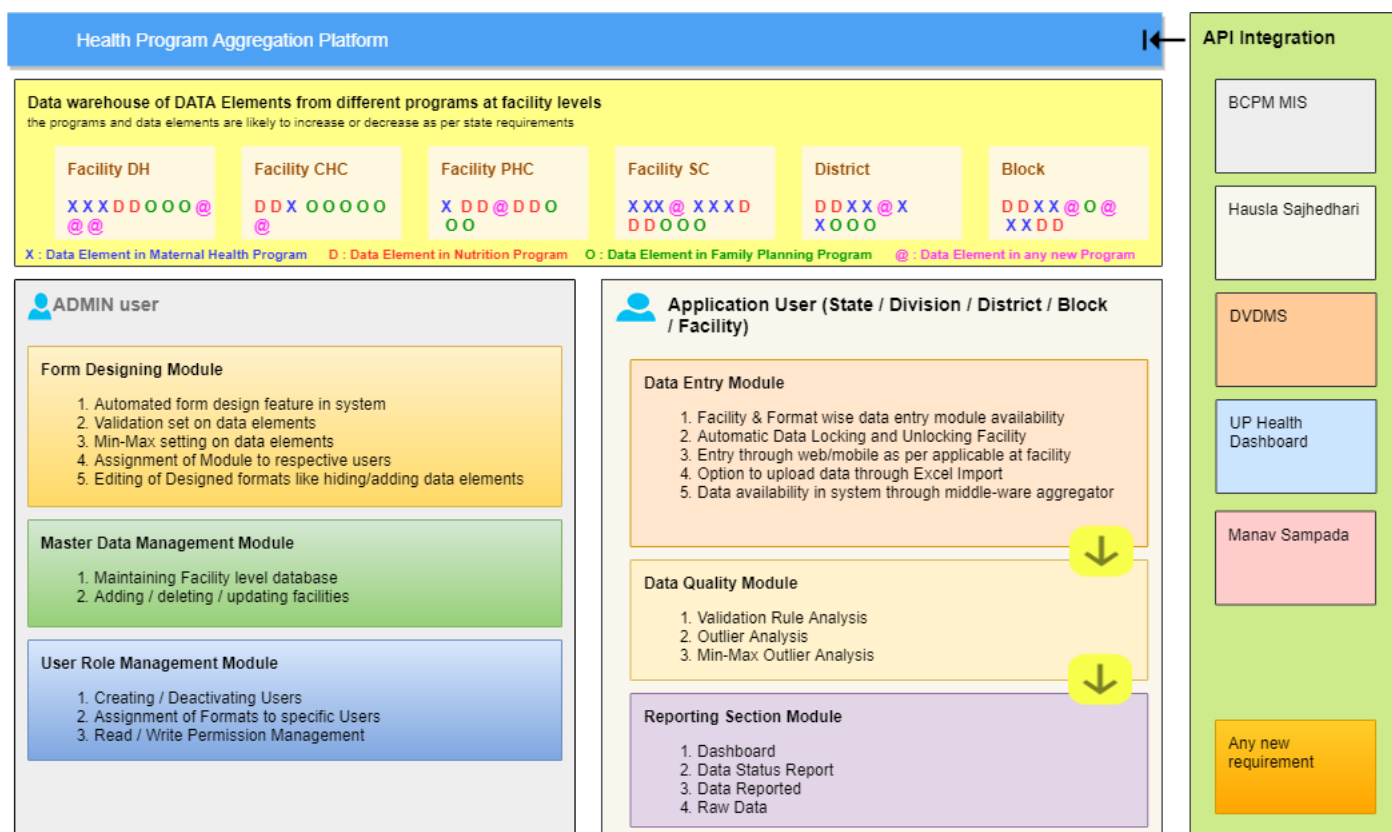
3.1.2.1 Development and Testing of Health Program Aggregation Platform - application and Mobile App

The agency will be responsible for development, integration, testing and deployment of the Health Program Aggregation Platform along with portals based on:

- The functional requirements given in coming section of the RFP and

- SRS & SDD finalized by the SI in consultation with the UPTSU

- Prototype development in consultation with the UPTSU

- Project implementation approach

- Any other related documents

➢ The Health Program Aggregation Platform should be able to support all common browsers and mobile platforms (like Internet explorer, Mozilla, Chrome, Safari, Android, iOS, Windows platform etc. up to the latest version).

➢ Updates shall be provided by the Agency to support the future versions of the OS platforms and browsers free of cost during the Operation & Maintenance (O&M) period.

➢ The mobile application shall be used by all the stakeholders, so, the application must support the Android and iOS operating systems versions of low-cost entry level smart phones also.

➢ All the forms labels and instructions etc. shall be available in the Health Program Aggregation Platform both in English and Hindi language.

➢ The Agency is required to design the solution in such a way, that it works smoothly on the available bandwidth while meeting the SLAs and other requirements of this RFP.

➢ The Health Program Aggregation Platform solution should be designed in such a way that all the functionalities must be available to the end user even at the minimum Broadband speed specified

by the Government of India/Telecom Regulatory.

3.1.2.2 Program Based Data Elements and Indictor

The Health Program Aggregation Platform will be an aggregation of programmatic indicators/data elements across all Health Programs in Uttar Pradesh. This includes major Programs in Health System is RMNCH+A (Reproductive, Maternal, Child Health and Adolescence), Nutrition, Family Planning, NCD, etc. To track and monitor the progress and effectiveness of programs, the Aggregation Platform will act as a warehouse of all data elements across all these programs. The platform will enable more health programs to be added/prioritized over time, enabling collection of data elements and data sets collected across facilities/geographies.

Health Program Aggregation Platform will be one of the largest implementations in the state of Uttar Pradesh having more than 28000 (approx.) organization units and more than 40 (approx.) different reporting formats which includes monthly, quarterly and annual reporting.

S No	Hospital	Number
1.	District Hospital	184
2.	Community Health Centre	3961
3.	Primary Health Center	3473
4.	Sub-Center	20780
	Total	**28398**

List of Division, District and Block

S No	Entity	Number
1.	Division	18
2.	District	75
3.	Block	829
	Total	**922**

Data Entry Format including programs

S No	Entity	Number
1.	District	24
2.	Block	5
3.	Facility	11
	Total	**40**

Reports

S No	Entity	Number
1.	State/ Division/District/Block	60
	Total	**60**

Note: - All the above count may vary at the time of requirement gathering

3.1.2.3 Dashboard

The dashboard generated based on the data reported/collected on this platform will support decision making across the continuum of care, based on geographies, facility types and health programs.

Thus, the agency will create a Dashboard for all the application users available across different user levels in the state. The hierarchy based down drill down will be made available at each level. For instance, at the State level user should be able to view the dashboard for its sub-geographies like Division, District, Block, Facility, etc. The dashboard will be developed based on the Key Indicators selected program wise. The Dashboard must be flexible enough for viewing the data/graphs as per the requirement of the end user, and maybe facilitate the following views:

1. Indicator Wise: Showing comparison or data/graphs on basis of the Indicators over a period of time
2. Geography Wise: Showing comparison or data/graphs on basis of the Geographical selection, over a period of time
3. Program Wise: Showing improvement in form of data/graphs per program wise to analyse the effectiveness of the program, over a period of time
4. Facility Wise: Showing improvement/Comparison, in form of data/graphs facility wise, over a period of time.

All these views will be accessible across the Timeline based filters available with the application users.

3.1.2.4 Middleware Integration

The Health Program Aggregation Platform solution will be a collection of aggregated data across the facilities/geographies over program based data elements. Going further, Govt. of UP is planning on digitizing the data to beneficiary level data by implementing beneficiary level unitized solutions across the state. Once these platforms are rolled out at the last mile, digitized data will be collected real time at a beneficiary level. This in turn will require a Middleware, being developed separately, to aggregate the beneficiary level data, across the state, for the program based data elements. The Middleware be integrated with the proposed Health Program Aggregation Platform.

The digitization till beneficiary level will take place in phased manner, so the Health Program Aggregation Platform, will need to be designed in a way that it allows all modes for data availability in the system. Data collection will be in initiated from facilities, block and district level, will be aggregated in middleware and then middleware will send the data to the platform, whereas in rest places the current modes like: web, mobile and excel import will be continued. The application architecture should support the flexibility to adapt to such changes over a period of time.

3.1.2.5 SMS/Alert Solution

The agency will integrate the relevant modules, functions etc. of Health Program Aggregation Platform with SMS/Email Alert gateway functionalities. OTP based authentication shall be provided for specific features and modules (will explore this features more during requirement gathering phase). The details of such features and modules shall be discussed by UPTSU with Agency

3.1.2.6 Security

Security shall be one of the important requirements of Health Program Aggregation Platform. The Agency shall adhere to IT security best practices right from the inception and design phase of the application development till the end of O&M. The bidders shall elaborate the proposed security

practices as part of the technical solution of the bid document. The application should be free of any vulnerability and malware. The security solution shall be implemented in the following layers of the Health Program Aggregation Platform:

- Application
- Database
- Server (Infrastructure)
- Mobile App

The proposed security solution shall adhere to all security guidelines issued by OWASP from time to time.

The Agency's responsibility shall be to continuously manage a secure environment, implement appropriate mitigating controls, integrate with the core IT environment and escalate appropriately in case of incidents or emergencies. As part of the technical bid, the bidders shall propose the hardware and security solutions required to implement security solution as mentioned in this section. The hardware and security solution shall be proposed in the unpriced Bill of Material (BoM) in the format provided in the RFP.

3.1.2.6.1 Key Consideration

- Solution should comply with latest Information Technology Act of India including all amendments thereon.

- Based on ISO 27001:2013 standards, user access to the system must be through an authentication process, which should involve specification of a user Identification, a password and the applications displayed must be as per the user profile and authority.

- The system should allow user to change his/her password based on a given time frame as well as give the User the option to change the Health Program Aggregation Platform's password at any time.

- The system should disable the User profile after three unsuccessful log-on attempts. The system should have provision for re-enabling the disabled User profiles after single or multiple steps of online and/or offline verification of the User. The system should be able to log successful and failed attempts to the system.

3.1.3 Testing Requirements

Agency shall create the test strategy document that defines the requirements and goals of the configuration, determine the tools and methods used to check that the system responds correctly, determine how and when the test will be performed etc.

The test strategy document shall guide the project team through the implementation to ensure that planning and conducting testing activities in the various phases of the implementation are proper. The various testing phases are as follows

3.1.3.1 User Acceptance Testing / Pilot Testing

- Agency shall prepare test cases for User Acceptance Testing (UAT) in consultation with concern Authority of UPTSU (Program Team). The UAT shall be conducted in the form of Pilot Testing for each phase of the project. Agency shall facilitate the team from Authority and this test. For Pilot Testing, modules of Health Program Aggregation Platform shall be chosen and the Agency shall demonstrate all the functionalities of the Health Program Aggregation Platform, including end to end workflow, using real data for the department.

- The modules for the Pilot Testing shall be chosen by UPTSU at an appropriate stage of the project, such that, it provides sufficient time to the Agency to implement the solution and demonstrate the Pilot Testing. Agency will close all bugs etc. identified during the UAT. This process of UAT will continue in an iterative manner till zero defects are shown by the

Agency for the test cases developed. The SI also needs to ensure that errors/ defects detected in previous round of tests do not get repeated in successive tests.

- The agency will submit a Pilot Testing report along with test cases, tests results etc. at the end of the testing exercise and get a sign-off on the UAT/ Pilot Test report from Authority.

3.1.4 Deployment of Manpower

The Successful Bidder shall deploy onsite team consisting of minimum of following members for development /configuration/customization / implementation of the Health Program Aggregation Platform within fifteen (15) days of date of Signing of Agreement.

The bidders shall submit resumes of key personnel both supervisory and technical along with technical bid as per format given in the Annexure I4 and I5. The bidder shall demonstrate the availability and degree of commitment of personnel with technical expertise. The resources for below mentioned categories should be on the rolls of the company as on the date of submission of bid.

A. Minimum Key Resources during design and development, and implementation of the Health Program Aggregation Platform solution shall be as follows:

(Note: the table below is only for key resources and agency needs to staff the team in sufficient number and skill set to meet the requirement of the RFP).

Sr. No.	Role	Responsibility	Minimum Qualification
1	**Team Leader Cum Project Manager**	- Ensure timely implementation of Health Program Aggregation Platform project as per the requirements of the RFP - Managing the entire set of functions and day-to- day operations of Health Program Aggregation Platform - Monitoring performance & efficiency of various Teams and Resources at Health Program Aggregation Platform - Reporting to UPTSU regarding development and operations of Health Program Aggregation Platform on a periodic basis	- Fluency in English and Hindi (Speaking, reading & writing) - Knowledge and at least 15 years of experience in managing project implementations and operations - Experience in implementation or operations of at least two public health project - Minimum M.B.A. and B. Tech/BE/ MCA

2	**Solution Architect**	- Leading team of developers, DBAs, Application Specialists and Hardware Specialists - Should have exposure in health project - Design the architecture of the project as per latest industry standards - Prepare and Maintain proper work plan for implementing the architecture milestone wise	- Fluency in English and Hindi (Speaking, reading & writing) - Knowledge and at least 10 years and minimum 5 projects experience in designing Solution (in Government / Public sector/ Private Sector health based project) - Minimum B. Tech./BE/ MCA - Any leading IT architect certification in proposed technology
3	**Test Engineer**	- Carrying out testing activities for Health Program Aggregation Platform and managing a team of test engineers - Prepare Test Cases and share module wise test analysis with the team - Implement complete test plans like: black box, white box, integration as well, etc.	- Minimum 7 years of experience of testing IT applications - Experience of testing Government/ Public Sector applications - Excellent communication, analytical and problem solving skills - Minimum B.Tech/BE/ MCA - Any leading testing certification in the proposed tool

4	Database Developer	• Database Design maintenance and support functions for Health Program Aggregation Platform • Database normalization as per data requirement • Tuning and indexing of Database timely • Implement proper Backup plan	• Minimum 7 years of professional experience in storage and management of electronic data software • Should have worked with database management systems software, determining effective storage methods while managing tasks involved in database environment • Excellent problem solving abilities and detail orientation • In depth knowledge in the proposed DB • Minimum B.Tech/BE/ MCA • DBA certification from any RDBMS OEM.
	UI/UX Developer	Experience in UI/UX Design and Development	• Minimum 3 years of professional experience in Design and Development of UI and UX
	Programmer	Preferably experience in JAVA/J2EE Coding and Development and Unit Testing	• Minimum 5 years of professional experience in Design, Coding and Development

B. Minimum technical resources for Maintenance & Support Services after Go-live for the period of 2 year are as follows

S. No.	Role	Responsibilities	Minimum Qualifications
1.	Team Leader Cum Project Manager	• Managing the entire set of functions and day-to- day operations of Health Program Aggregation Platform during O & M Phase • Monitoring performance & efficiency of various Teams and Resources at Health Program Aggregation Platform • Reporting to UPTSU regarding operations of Health Program	• Fluency in English and Hindi (Speaking, reading & writing) • Knowledge and at least 15 years of experience in managing project implementations and operations • Experience in implementation or operations of at least two government health project • Minimum M.B.A. and B.

		2Aggregation Platform on periodic basis	Tech/BE/ MCA
2.	**Support Engineer (2 members)**	• Managing day to day support activities • Acknowledging queries from field team and provide solution in minimal time span. • Support team availability shall be required 24*7	• Fluency in English and Hindi (Speaking, reading & writing) • Knowledge and at least 5 years and minimum 1 project experience in managing Health Program Aggregation Platform Minimum graduation in computer BSc/BCA/BE

3.1.5 Documentation and Versioning

The Agency must ensure that complete documentation of Health Program Aggregation Platform Project is provided with comprehensive user manuals, and adhere to standard methodologies in software development as per ISO standard and/or CMMi models. The project team shall provide the following documentations in hard as well as soft copies:

- Detail Project Plan
- Fortnightly & Monthly progress reports
- Traceability Matrix document
- Communication Plan listing all stakeholders in the project, defining their roles and responsibilities
- System Requirement Specification (SRS) document containing detailed requirement capture and analysis including functional requirement, Interface Specifications, application security requirements, database model
- Complete Source Code with required documentation.
- Test Plans and Test cases (including Unit Test Plan, System/Integration Test Plan, User Acceptance Test (UAT) Plan, Security Test Plan, Load Test Plan)
- Training Manuals and literature
- Systems Administration Manuals
- Application User manuals (Standard Operating Procedure)
- Installation Manuals
- Operational Manuals
- Maintenance Manuals
- Frequently Asked Questions Document
- Security policy and procedure for Health Program Aggregation Platform including Password security, logical access security, operating system security, data classification, and application security and data backups.
- A data dictionary listing out all the data elements shall be prepared.
- All documentation will b2e supplied both in Hardcopy and Softcopy format.
- Authority expects the SI to document the operations and management processes as per the ISO 20000-1 standard.

3.1.6 Operation & Maintenance from the date of Go-Live

Once the systems have been commissioned, the Successful Bidder shall provide O & M for the period of Two (2) years. The Bidder shall propose the teams for this along with their roles, job descriptions and profiles of key individuals as specified in the RFP.

- Updates/Upgrades/New releases/New versions: The SI shall provide from time to time the Updates/Upgrades/New releases/New versions of the software and operating systems as required. The SI must provide free upgrades, updates & patches of the software and tools to Authority as and when released by OEM/SI. The SI will implement from time to time the Updates/Upgrades/New releases/New versions of the software and operating systems as required after necessary approvals from Authority about the same

3.2   Function Requirement Specification

3.2.1   Business Requirements to be met by the System

The Health Program Aggregation Platform will be deployed by the developer and System Integrator should be able to deliver at minimum the following services listed below. The System Integrator shall implement all the necessary functional, technical, operational and other supporting requirements to meet these services

3.2.2   Functional Requirements

The Health Program Aggregation Platform is proposed to be one core, automated, scalable and integrated software application, deployed at NHM Server, having a Web Portal interface accessible through Intranet Core Application interface accessible to all facility staff through LAN / Intranet.

The Application will be hosted at NHM Server, customized and enabled for various requirements of facility and other health indicator according to the level of facility. This shall be achieved through the master maintenance of modules and functionalities, through Admin module wherein the authorized resource will be able to enable or disable the different functionalities based on Role Based Access Control (RBAC) but the application shall work on a common architecture, configuration and functional modules. Each of the facility across the state will be connected to the core central application hosted at server as per defined project implementation plan.

The core modular, fully integrated and automated software application for the Health Program Aggregation Platform, will have interface for various types of Users and applications (external integrated application). It is envisaged that the core application should have decoupled but integrated core database, though there may be logical partitioning for effective data retrieval and storage. In addition to the above, it is also proposed that the entire application architecture will have a" Business Logic layer" and a "Data Access Layer" to support the efficient data handling between the" Application Layer" and the "Database Layer". The application and its functionalities should be granular and modular enough for the administrators to enable or disable any particular function of Health Program Aggregation Platform at any health institution in the state, at any given time, as per their requirement, through "Application Admin" interface, without the need for a developer / code level change / custom UI change.

The core application should have HMIS modules, along with other automated user friendly features. It is a necessary requirement that the application should have complete integration between different modules and an efficient data sharing mechanism so that each module can showcase complete automated workflow functionality for a seamless backend processing. It is necessary that all the technical documents, with versions traceability matrix and updates, are maintained by the agency as per

standard Software Development Life Cycle (SDLC) and submitted to UPTSU as per agreed milestones and timelines without fail.

It is proposed that the integrated core Health Program Aggregation Platform shall have following two accessibility views:

- Health Program Aggregation Platform Web Portal
- Health Program Aggregation Platform Mobile App

The sections below describe each of the functional components of the proposed Health Program Aggregation Platform solution, as shown above:

3.2.2.1   Health Program Aggregation Platform Web Portal

The Health Program Aggregation Platform web portal should have both static and dynamic information. The application should be accessible through a web browser via Internet. The kind of information to be displayed on the web portal will be managed and controlled through the "Application Admin" module and "User Management" module in the system with an intention of making most of the information available for user based access through the web portal. The agency is required to develop a comprehensive information control and display feature through these modules.

- Login based application for State, Division, District, Block and facility level is rolled out
- **Users:** The user's module allows adding new users and manages existing users in the application. Each user can be assigned certain privileges, and to certain organization units for which they will be enabled to enter data on behalf of. A collection of privileges and authority can be grouped together to form a user role, which can be assigned to each user.
- **Organization units:** This module allows the admin users to create organisation units and build up the org unit hierarchy, which can comprise of administrative as well as service delivery units. Organisation units are added one by one as either root unit or a child of a selected unit in order to build a hierarchy. The hierarchy should be made on a geographic basis, as the hierarchy plays an important role in the GIS module.
- **Data elements and indicators:** Data elements form the basis of design. Data elements define what is recorded in system. This module allows the user to add data elements in the system. Indicators are composed of multiple data elements, and typically consist of a numerator and denominator. Calculated totals do not have a denominator. All other indicators except totals but are derived from combinations of data elements and factors.
- **Datasets**: A data set is a collection of data elements grouped together for data collection. The admin users can create multiple datasets based on the themes, and collection of data elements, by assigning them a frequency (reporting period) and an organisation unit.
- **Data quality:** The data quality module provides means to improve the accuracy and reliability of the data in the system. This can be done through validation rules, min max analysis for finding outliers and anomalies in the reported data.
- **Data visualizer:** The data visualizer module enables end users to easily create dynamic data analysis and visualizations through charts, graphs and data tables. The end users can freely select content (like indicators, periods and organisation units) for analysis.
- **Pivot table:** The Pivot table module enables users to create pivot tables, using all available data dimensions in the system. A pivot table is a dynamic tool for data analysis, which lets the end users to quickly summarize and arrange data according to its dimensions. A pivot table can arrange data dimensions on columns, rows, and as filters.
- **GIS:** GIS module enables the end users to plot data on maps to analyse data and trends geographically. It requires customisation where in the shape files, which hold the coordinates (latitude and longitudes), are integrated in the application based on the organisation unit hierarchy designed.
- **Dashboard:** The dashboard module is designed to give the end users an overview of multiple

analytical items like maps, charts, pivot tables and reports, which together can provide a comprehensive overview of the data for monitoring and evaluation.

- **Excel import:** Excel Import app allows the end users to upload their data in form of excel sheets in order to support offline data entry.
- **Data Approval:** Data approval module allows the users at different levels in hierarchy to approve data collected at the same as well as lower levels in the organisation unit hierarchy, so as to keep a close check on the quality of data entering in the system. The system allows the feature of allowing only the approved data to be a part of the data analysis, while the unapproved data is kept separate till the time it is approved.
- **Analytics:** Analytics module facilitates the aggregation of data from the lowest to the highest level in the organisation unit hierarchy and arranges the aggregated data in flat tabular structure. The visualization module such as Data visualizer, Pivot table and GIS when used for data analysis fetch data from the analytics tables.
- **Date Input:** This section will enlist all the data input (at District and Block level) related requirements for the platform:
    - The system will provide feature of dynamic form creations based on requirement. The task is done by the system maintenance provider/vendor.
    - Each data entry form is linked with appropriate user to consolidate data entry accountability.
    - Data entry form can be linked with appropriate users/roles
    - Periodicity of data entry
    - Time Bound (Date range for data entry after which the forms will be locked)
    - Ongoing (Conditional - Time Bound) – Opening and Closing Date
    - In case of exception scenario or delays in data entry
    - On demand – handling by call centre users who can unlock pertinent forms to allow late data entry and lock them back once it's been completed.
    - Call Centre users are users with required credentials/privileges for locking and unlocking form and creation of favourites for M & E users.
    - Upgrade aggregate forms to line-listing or individual records capture incrementally as required.
    - Module to monitor data quality and completeness. Data completeness reports should be available at all organizational levels.
    - Automated data validation based on previous data input – Min/Max rules.
    - Validation alerts based on defined rules i.e. interlinked fields/indicators in web-form and android data entry.
    - Data entry yearly calendar to match the financial year; allow for revision of reports and
    - Outputs to rectify issues in yearly reporting.
    - Automated integration with required third party applications.
    - One user can fill multiple form; but one forms for a certain location will be only assigned to a single data entry user for accountability and tracking.
    - Form interface can be in both Hindi & English languages.
    - Data View possible for data coming from external APIs – no editing possible.
    - ASHA Incentives in excel formats to be imported into the system on a monthly basis.
- **Data Validation & processing**
    - After data entry (21 to 30 of each month) the application should undergo data validation phase (1 to 5 of next month) by data validation committee at Block level. The data entry and approval functions should be provided to support this requirement.
    - Data Completeness check: Data Status Report
    - Forms which are not filled by the expected date are filled by respective users after data validation committee team's intervention; need to establish a SOP and tracking functions for the same.
    - Even after data validation committee team's intervention if forms are not filled, the respective user(s) can send email to call centre for unlocking forms.
    - Form unlocking facility is available for past three months i.e. historical data can be entered only for three months.

- o Data Quality module to perform data quality check based on set rules/algorithms for data correctness.
- o On Web Form Data Entry Form, user should be able to perform Data Quality checks.
- o On Mobile Data Entry Quality Check should also be available and visible to the users using prompts/alerts.
- o Re-entry should be allowed – till the window is open for data entry.
- o When a duplicate form is filled for same facility it will not be mandatory to perform data quality check each time by the M & E team though they are equipped/authorized to do so each time.
- o Audit trail should be made available for all data entry tracking.
- o Data Unlocking and re-entry will be allowed for past three months.
- o Analytics should be run daily for the past 3 months and once again every week for past 6 months weekly to ensure no data is left for processing.
  Definition of two months = Last two lock months i.e. all Data Processing in the month of December will capture data filled during October, November and YTD of Current Month
- o Data analysis will be performed on aggregated data and raw Data
- o Administrator can run Analytics Engine in the even Scheduled Execution of Analytics Engine gets failed
- o Data discrepancy will be reported once analytics is complete.
- o Data discrepancy incidents will be reported by M & E team. There should be a mechanism to address the issues by the system.
- o Decision Tracker
- o Facility Master- add/ delete/ update functionality support.

- **Data Outputs and Reports**
  - o Application should facilitate generation of core standard reports – PIVOT Table, Charts, Data Visualizer.
  - o Raw Data Reports that are generated by SQL Scripts followed by Analytics Engine on a daily basis, previous file is overwritten.
  - o Provide function to produce Reports that are generated on demand or on user requests
  - o All reports to be parameterized on multiple dimensions on Data Elements, Org Units, and Periodicity.
  - o All reports are downloadable on CSV, XLS, JSON, PDFs formats. Reports can be printed using application portal
  - o Favourites are custom reports generated either by user or by IHAT team on user request. These reports should be stored under favourites section.
  - o Favourites are also to be parameterized and are rule based on access rights.
  - o Data output/export from UP Health Program Aggregation Platform to external dashboard using APIs.
  - o Limitations for Pivot must be addressed in terms of Organization Unit, Period and Data.

- **Data Integration:**
  - o The UP Health Program Aggregation Platform will function as the core data warehouse and will be sourcing data from multiple systems including NDHM application, Manav Sampada etc.
  - o These integrations will be through an automated ETL (extract-transform-load) process to
  - o Eliminate data duplication and reduce persistence and processing burden on the data ware house.

- Report generation as per desired format is to be possible from the portal using pivot table concept
- Data analysis mechanism to be incorporated.
- Decision tracking feature to be available for better decision for management level

3.2.2.2 Health Program Aggregation Platform Mobile Module

A Mobile App (supporting Android and iOS) with Text, data interface (approximately 8 screens with options of handling user input) both in Hindi and English needs to be developed. The App would be primarily used an interface between facility/Health (ANM, BCPM) officials and Health Program Aggregation Platform database.

This app shall provide functionalities like Data capturing, Reporting and Dashboard under Health officials and other stakeholders shall be able to see basic reporting and dashboard related to various data being collated on Health Program Aggregation Platform server.

The tentative content wise pages for the mobile application would be:

- Welcome page with name of mobile app
- The page for selection of language – Hindi/ English
- Menu page with list of icons

  - Health Indicator Entry

  - Reports

  - Setting

  - Home/Dashboard

Detailed dashboard requirement would be worked during the implementation phase of the project

3.2.2.3 Health Program Aggregation Platform Backend Support

It is proposed that all the backend support services including system support services will be part of the core Health Program Aggregation Platform solution.

It is envisaged that the different support services would be available as user friendly options within the support services module, which would be accessible to different types of Users based on access rights provided through the "Admin" module.

3.2.2.4 Application Admin

It is required that there would be an UI Interface provided for the Admin User, for User Management, Rights Management, and Masters Management for controlling list / field values.

The UI for Admin need to be configured as per the "ACCESS CONTROL" requirement provided by UPTSU and agreed upon by UPTSU and the agency at the time of acceptance of the Health Program Aggregation Platform.

This should be the heart of the application software. And for every change carried out during the Change Request, the impact analysis with reference to the Admin controls must be analysed, discussed, approved by UPTSU and then implemented.

Maximum and/or nearly all the variables must be dynamically controlled through masters from Admin instead of being hard coded.

Admin USER will be strictly a single USER login for the Health Program Aggregation Platform application software and the ACCESS policy shall be integrated and collaborative for the "Health Program Aggregation Platform" users

3.2.2.5 Authentication

Authentication is the process of identifying an individual, usually based on a username and password, as a valid application User. Authentication will be done for valid Users. A valid User for this application is one who has been set-up in this application such that he/she can access the application. Authorized Users will have to access the login screen for authentication.

3.2.2.6 Privilege Administration

Privilege Administration is the process of assigning privileges to individual Users or User Groups. The privileges specify the level of authority assigned to User or User Group i.e. whether it is for a tab, a screen or a field.

If a User Group has certain privileges, and a User gets assigned to that User Group, then automatically the User inherits those privileges. The application allows selective revoking or re-granting of privileges e.g. if a User has acquired certain privileges on account of being assigned to certain User Group, then for that User, the application should allow revoking of the inherited privileges at individual User level, as required.

There should be a UI available for adding new privileges also, with due approval and verification process inbuilt in the system. This will allow the Administrators to configure new privileges and will apply to all Users once configured and committed in the systems.

3.2.2.7   User and Group Management

User Management will be a management and authentication feature within the application that will provide administrators with the ability to identify and control the state of users that will have right to log into the "Health Program Aggregation Platform" application and use it. The module will help create different types of new Users, Manage their designations, locations, Roles and Responsibilities, as well as their rights within the entire system. This will also provide the feature of activating or deactivating any users, including other User management features, but is not limited to, the ability to query and filter users that are currently logged into the network, and control user login counts and login times. There should be facility to form "Groups" and the Users can be assigned to desired Groups. These groups can be formed based on roles, responsibilities, type of work, etc. The properties of these groups can be assigned for better manageability of each User within the Group.

3.2.2.8   Rights/Privilege Management

Through the User authentication server "Rights Management Services" (RMS), there will be a form of User authentication functionality that will allow various users to access the "Health Program Aggregation Platform" system and work as per their defined Roles and Responsibilities. Rights Management Services will be used for restricting access to rights-protected content / sections / modules / screens / Fields, etc. to authorized users only. Rights to all active users will be granted based on their hierarchy and level in the organization, designation, assigned roles and responsibilities, location etc. among other parameters. It is also proposed that the new rights can be created through the Rights Management UI interface as well as existing rights be managed through the same. The access to this section of the application will be strictly based on "Role Based Access Control" (RBAC) for the Administrator(s) only as defined in the ACCESS Policy. The details of any change in this module will be captured in the Audit Trail of the application. Also there should be facility to assign/modify/delete rights globally for the desired Groups within the system.

3.2.3   MIS Reporting

This will give authorized Users the ability to have a customized view of the entire list of reports they use or wish to use. Required security will be applied to this module providing a restricted access as per different category of Users within the Hospital. This module may be further linked to the Personalized Dashboard where the same links to these reports can be displayed in small portlets, so that any User may not always search for their frequently used reports from the Reports module, and they can add it to their own dashboard for ease of use. All the reports made available need to be controlled through "Admin" module for variable access depending upon the nature and status of the USER. The access control list of the reporting servers needs to be mapped and configured with the admin access control policies.

Following are the kinds of reports proposed in the Health Program Aggregation Platform:

- **All / Fixed Reports** – This subsection within the Reports module will have a list of all fixed reports as a hyperlink, which will display the reports as per pre-defined logic / query on the screen, with the option of exporting the report to different formats (PDF, HTML, word, excel or comma separated values), Print and Save the report. All these may be one click fixed reports or maybe dynamic to allow changes to only certain parameters (like date or period range though dropdown fields) in the pre-defined query and then execute the command to prepare the report.

- **Custom Reports / Adhoc Reports** – An UI interface will be provided to specific users that will give them view of Health Program Aggregation Platform database providing the ability to generate custom reports as and when required by selecting any particular field, table or column (as per Database design) by drag and drop feature. The UI will help form simple queries and execute them by providing the user with ability to select fields / tables from the display and enter certain basic parameters. The filter criteria and other user friendly features will also be provided for ease of use. The screen view of the report will be

displayed and then the user will have option of exporting it to different formats as mentioned above. The key features of this functionality will be as follows:

- This functionality will be permission restricted. Based on the type of rights / permissions granted to any user, they will have ability to view the tables of Health Program Aggregation Platform database through the User interface.
- Report Builder tool may be used to implement this functionality so that Users can easily create and execute queries by only entering the basic parameters.
- **My Reports –** This subsection will have a list of reports as a hyperlink that is frequently used by the internal users, as a kind of personalized section displaying only the preferred reports for any User. These frequently used reports will be a subset of the All / Fixed reports and would be bookmarked to appear on Health Program Aggregation Platform / her personalized dashboard also, as customized by the individual Users

All the required reports, by each of the Health Administrators / UPTSU / other stakeholders, must be immediately generated. The application architecture and the Database design must enable fast retrieval of data, supported by optimized "Health Program Aggregation Platform" application interface.

3.2.4 Audit Trail

Audit trail will be a detailed record showing who has accessed the system/application and what transactions / operations have been performed by the concerned user during a given period of time. Audit trail must display the following details, but not limited to, with filter / sorting criteria options:

- Timestamp
- User Name
- Module – Sub Module – Screen – Section – Field Name
- Previous Value
- Current Value
- Remarks (if any)

It is must that the Audit Trail module does not have a "Delete" or "Edit" right granted to any user irrespective of any type or hierarchy as created in the system. The "view" rights should also be controlled through RBAC in Admin Module

3.2.5 Password Retrieval / Reset

It is also proposed that the Health Program Aggregation Platform will also have standard password retrieval / reset functionality to ensure that Users do not face any issues while logging into the system and availing online information and services, as applicable

3.2.6 Search /Advanced Search

It is proposed that the system should provide the users with "Search / Advance Search" features to get necessary information, based on the certain parameters or criteria's pre-defined in the system. The results should be displayed to the Users in a User friendly manner with features like pagination, sorting, drill down etc. The Agency is expected to develop the entire search functionality within the application in discussion with the UPTSU official's / module leaders.

3.2.7 Integration Services

3.2.7.1 Integration with External Applications and Systems

Health Program Aggregation Platform Core Application is envisaged to be a completely automated and integrated software application which envisaged to be used not only by internal facility /program and also8 for other users.

It is proposed that a standard mechanism of data exchange be built and implemented by the SI to cater to any external systems requirement so that the impact on the Health Program Aggregation Platform core application is minimal due to any external changes. The system shall enable integration / data exchange to and from any external application / database which will happen only through an "Interface Component" by using a standard data exchange protocol through a secure channel, utilizing the "Interface component"

Following are the key external applications which are envisaged to be integrated with Health Program Aggregation Platform, but not limited to:

- Manav Sampada
- DVDMS
- Up health dashboard application
- And other state and GoI application

List of integration application will be shared during the time of requirement gathering.

3.2.8 Proposed Backend Components / Server Interactions

Apart from the various functional modules and additional functionalities mentioned above, it is proposed that the application would be supported by backend components / servers / databases. The indicative components to be considered as part of the proposed solution and their logical interaction to support the overall automated system environment are mentioned below.

- **Application and Web Server**
  Application Server will form the middle tier and the Health Program Aggregation Platform core application would be hosted on it. Application server would take care of the necessary workflow, accessible through Intranet, and the web server would be required for interfacing with the external users via web browser through Internet. The business logic layer will coordinate the application, process commands, make logical decisions and evaluations, and perform calculations. It also moves and processes data between the two surrounding layers.

- **Database Server**
  The Health Program Aggregation Platform integrated with a core database will act as decoupled but yet single data storage. Since this data is centralized and is very critical, it should be load balanced and clustered to ensure high availability and reliability. The data would be stored on the storage server.

- **Reporting Server**
  Reporting Server can be used to prepare and deliver a variety of reports, majorly MIS reports. Users can generate fixed and custom reports through the Health Program Aggregation Platform's core application that interfaces with the Reporting Server. Integration with advanced analytics/dashboard is also proposed so that analytical reports should also be available for Health Program Aggregation Platform users" in real time for decision making purposes

- **External Interface / Database**
  It is envisaged that the Health Program Aggregation Platform's core application will need to interact with other applications / specific databases, either for intelligence purpose or for information / data sharing. It is proposed that the Health Program Aggregation Platform core application will share the data with any of the other applications / databases through an "Enterprise Service Bus". The necessary data mapping and formats for data exchange will have to be developed by the agency in consultation with UPTSU and owner of external applications / databases.

- **State/Division/District/Block MIS Users**
  The Health Program Aggregation Platform is envisaged to provide higher state and district officials and other health department officials / administrators the capability to view customized MIS reports/ advanced analytics, accessible through Internet and Health Program Aggregation Platform Web Portal. The SI is required to develop and implement the necessary features in the application.

3.3   Technical Specification

Application Solution must be web enabled, built on enterprise application platforms with sufficient flexibility for customization based on UPTSU's needs. The proposed Health Program Aggregation Platform must use standard relational database

- **Language Support:** All functionalities must be provided with bilingual support i.e. in English and Hindi language. All the screens and templates should be in English and Hindi. Where required, screen shall support Devanagari script. In addition, application shall support Unicode formats for text editing, file name, data storage.
- **Dates:** All functionality MUST properly display, calculate, and transmit date data, in 21st-Century date data (DDMMYYYY) format.

3.3.1 Application and Other Standards

This section details the various Information Technology (IT) related standards that are to be considered while developing the Health Program Aggregation Platform. The below mentioned components need to be taken care of while developing the technology components on Health Program Aggregation Platform:

- **Platform Flexibility:**
  - Web-centric, multi-tier architecture shall be used
  - Open Standards and Interoperability shall be considered
  - XML based standard shall be used wherever applicable
  - Compliance to SOA and Web-services
- **Interoperability**
  - Usage of standard APIs
  - Service-oriented architecture (SOA) based
  - Support for multiple industry standard databases with ODBC, JDBC and Unicode compliance
- **Usability**
  - Applications should comply with Guidelines for Indian Government Websites
  - Compliance with industry standard: The Health Program Aggregation Platform shall be based on and compliant with industry standards (their latest versions as on date) wherever applicable.

3.3.2 Performance matrix

Some of the key considerations that the System Integrator should aim for while designing the deployment architecture is to ensure that the Health Program Aggregation Platform project meets SLA requirements, standards, specifications and performance prescribed, by ensuring that the following are associated with clear, quantifiable metrics for accountability:

- Performance
- Availability
- Security
- Manageability
- Scalability
- Inter-operability & Integration
- Standards and protocols

The solution must be designed to meet all functional, non-functional and management requirements as mentioned in the document. Some of the key acceptance criteria are defined in the table below.

3.3.3 Acceptance Criteria

3.3.3.1   Security

The Agency must take rigorous provisions to prevent unauthorized alteration or damage to Health Program Aggregation Platform, and all related applications and databases. The Agency must describe in detail all measures to be taken, including the use of security infrastructure including end-point security, Security Policy and Procedures for each project location,

applicability of the policies and security controls for physical, communication, assets, software licenses, equipment security etc. Agency shall provide basic level of security by providing the end users with username and password to access the applications. Agency shall deploy the application only after it has undergone User Acceptance Testing (UAT) and is security audited by the third party for vulnerability assessment (VA) and penetration testing (PT). The UAT shall also include assessment and evaluation of all application SLA"s However SI shall undertake and conduct all sorts of testing and follow a standard Software Testing Life Cycle approach (STLC) before deployment of application in a production environment in addition to assessment and certification through the security audit team. Additional layer of security shall be provided to sensitive applications by deploying these behind Application Firewall. The UPTSU shall also arrange for the Third Party Audit (TPA) of the Health Program Aggregation Platform Solution implemented by the Agency and the charges for hiring the services of TPA shall be borne by the UPTSU.

The Governance Framework established for the project shall ascertain what all measured risks that needs to be accepted; however, agency shall at each such occurrence/incident be responsible for providing resolution in terms of correction, prevention and remediation throughout the project tenure.

3.3.3.2 Backup and Recovery

The agency must design and successfully test backup and recovery capabilities as provided by the hosting centre for the Health Program Aggregation Platform application the agency must describe this functionality, the frequency of backup and provide reports to UPTSU. It is a must, that the facility to conduct such tests/audits should be provided to UPTSU or any other nominated agency on behalf of UPTSU for audit purposes, as and when required. Agency shall be responsible for data storage, backup and recovery measure that will be taken at individual facility separately.

3.3.3.3 Uptime and Performance

Health Program Aggregation Platform application should be complying the hosting service Uptime and hence performance issue can be avoided.

3.3.3.4 Version Control and Bug Fixing

The agency must make any modifications necessary for the duration of the contract to ensure that the system is compatible with current and supported versions and releases of the relevant operating system and other system software with all relevant documentation. It is a mandatory requirement that all relevant documentation be created, updated and maintained throughout the contract duration. The agency will also ensure that proper track of all bugs are maintained and are fixed as per various tests conducted on the application. It is desirable that the agency maintains a bug tracking tool for the purpose.

3.3.3.5 Future Changes / Application Upgrades

From time to time, changes in work process, legislations, policies, etc. may necessitate changes in the Health Program Aggregation Platform application. The agency must make any and all such changes for the duration of the contract as defined in the "Change Control" procedure. When provided the specifications of the change required, agency must submit an estimate of work effort and cost for the change, as defined in the "Change Control" Life Cycle" to UPTSU for approval.
Note: The Change Control Life cycle needs to be discussed and agreed with UPTSU upon selection of the agency and contract signing.

3.3.3.6 Data Loss Protection

The successful agency will need to implement comprehensive solutions with centralized workflow capabilities, integrated policies, and customized reporting, in order to manage Data Loss and protect sensitive data. They will also need to provide UPTSU with a modular DLP program that offers capabilities across three main vectors: data at rest, data in motion, and data at endpoints. The agency shall provide UPTSU with the DLP policy and statement of applicability for each aspect of the network, storage and end point according to the scope of work defined in the RFP. This is a mandatory requirement.

3.4   Training Requirements

Agency shall be responsible for imparting training to the trainees at identified location on developed applications. The participants for training shall be selected by UPTSU. The entity of agency responsible for Training, shall work under direct supervision of nodal officer and UPTSU. Right from planning of Training to training material preparation and delivery of training shall be done under their supervision.

Agency needs to conduct the training before Go-Live of each phase. The agency needs to carry out the following as part of the training exercise:

- **Developing the training content** - Agency shall ensure that the training content is relevant to the target trainees depending upon the role played by them. The training material should be illustrative enough for easy understanding of the user and smooth adaptability of the Health Program Aggregation Platform. The training material should carry specific sections like 'Dos and Don'ts', 'Frequently Asked Questions', 'Points to Ponder', 'Things to Remember' to make it more interesting. There should be separate training materials for different level of users. The training materials should be revised on release of the revised software.
- The agency shall develop Web Based Training (WBT) modules for all categories of employees. The modules should be interactive and easy to understand. The agency shall also develop 'How to Use' videos for various modules of Health Program Aggregation Platform. These videos shall be uploaded by UPTSU on appropriate platforms.
- The agency shall submit the training content to UPTSU for approval. It shall be submitted at least 20 days in advance before the conduct of training. UPTSU will review and provide comments to agency on the training content within 7 days of the submission of draft training content. Agency shall incorporate and implement changes suggested by the agency in training delivery and content.
- Prepare Training Schedule Objective of the training to ensure proper adaptation and use of the Health Program Aggregation Platform software by the end users. To meet this objective, agency shall prepare training calendar for each phase of software development in consultation with UPTSU. Agency shall organize both classroom sessions and hands on practice for the trainees. SI shall provide training portal for hands on practice of Health Program Aggregation Platform modules.
- It is also proposed that the training contents / User Manuals be made available to Users in downloadable (PDF) format so that the Users may refer / download it for their own personal reference as and when needed. 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 those key words. It envisaged that any User will be able to search and read the directions / information for only the part required by him/her rather than looking through the entire PDF document and manually searching for the right content. On entering the key words for search criteria, the system should pull out and display the links to the content as mapped. This feature should be dynamic with real time search availability, i.e. as soon as the key words are changed; a new set of content links with page / chapter references within the document should appear for selection. Once the selection is made by the User, the system should display the PDF content.
  - Agency needs to submit training completion report at end of training.
  - Providing Hard copies of training material to participants shall be responsibility of SI and the cost for the same must be included in the training costs as proposed by bidder in their proposal.

3.4.1 Identification of training Material

UPTSU shall be responsible for identifying the participants for the training based on the concerned modules going live during a particular phase.

3.4.2 Circulating pre-training material

Agency shall make adequate provision for circulating pre-training material to all the participants at least seven (7) days before the conduction of the training. The pre- training material may be circulated in electronic form and hard copy form to UPTSU.

3.4.3 Language for delivery of training

The mode of training delivery shall be in English and Hindi.

3.5 Change Management

Introducing any change needs to consider the impact that change will have on all stakeholders – both within and outside the program. It is therefore necessary to formulate a change management strategy that encompasses the requirements of the end user and the workforce. Change management should start with the planning stage and continue with life of the project. It is essential to understand that change management is not a onetime activity. It is a continuous activity propagating to complete life of the project and touching all the stakeholders involved in the project.

Agency shall track and manage changes to artefacts, such as code and requirements. Requirement for change management shall be provide by the client to vendor. Vendor shall acknowledge and understand the need for change, then develop a change plan accordingly, which shall be implemented and tested and signed off by the client before deployment.

This section focuses on the change management and capacity building approach and plan so as to be able to tackle the issues that might arise due to new processes within the new Health Program Aggregation Platform. Training for Health Program Aggregation Platform will allow multiple stakeholders to participate in the day to day management of the solutions and ensure sustainable programs to cover basic system awareness programs in addition to Health Program Aggregation Platform specific programs in order to ensure adoption of the system at each level.

3.5.1 Need for Change Management

Introducing radical reforms has to be necessarily accompanied by efforts to energize and orient the mind-sets of the people – both within and outside the program. For instance, the District/Block staff should be skilled to operate and work in a significantly newer and different way. A well-calculated and well-designed strategy has to be followed for the people to be trained to work effectively in the new environment. It is necessary to formulate a change management plan with appropriate interventions for capacity building, training and stakeholder communications.

A successful Change Management Program will ensure:

- A smooth transition to the new way of working
- The organization/people support the changes implemented
- Individuals know how the changes affect them and the role they have to play
- Stakeholders to understand the benefits of the changes and internalize it
- The new system and its underlying concepts are understood
- People are aware of how roles and responsibilities are changing
- Everyone is motivated and committed to the change program

- The success and progress of the program is monitored and measured

Scope of work and envisioned activities is at Appendix I7.

4. Key Project Milestones and Timeline

Sl. No.	Particular	Deadline
1.	Issuance of RfP document	19-01-2021
2.	Pre-Bid meeting with bidder (if required)	25-01-2021 at 15:00 hrs
3.	Last Date for seeking queries , if any	30-01-2021; 23:59 hrs
3.	Response to Queries	02-02-2021
4.	Start date and time for bid submission	03-02-2021; 00:00 hrs
5.	Last date and time for bid submission	13-02-2021, 18:00 Hrs
6.	Date and time for opening of Technical bids	15-02-2021
7.	Date and time for opening of Financial bids	to be intimated later
8.	Validity of Proposal	Proposals must remain valid for 90 days after the submission date
9.	Address for submission of Bids	To, Director (IT) UPTSU 404, 4th Floor, Ratan Square Building, Vidhan Sabha Marg, Lucknow, PIN- 226001
10.	Contact Details	procurement@ihat.in

Note: UPTSU reserves the right to change the dates mentioned in this document, which will be communicated to the bidders.

Note 1: The bids are to be submitted offline. Bidder may download Tender Document along with terms and conditions from IHAT website https://www.ihat.in/ However, for participating in the tender, it is mandatory to download & submit the tender offline only. The bidders are requested to submit their bids prior to last date of submission to avoid non-submission of their bids due to any unforeseen reason in last moments or any reason whatsoever.

The last date of submission of bids will not be extended if any situation arrives at the last hours. UPTSU reserves the right to reject all or any tender wholly or partly without assigning any reason whatsoever. The vendor submitting the proposal in response to RfP, shall hereinafter be referred to as "Vendor, Bidder / Vendor" interchangeably. UPTSU will not be liable for any costs incurred by the bidder in the preparation of the response to this RfP. The preparation of bidder's proposal will be made without obligation by UPTSU to acquire any of the items included in the vendor's product, or to select any vendor's proposal, or to discuss the reasons why the bidder's proposal is accepted or rejected. All information included by the bidders in their proposal will be treated in strict confidence.

5. Payment Terms & Schedule
i. Advance payment will not be considered.

ii. Entire payment shall be done in phased manner as shown below

S.no	On Submission of	% of Payment (in INR)	Remarks
1.	Project Plan Document and Detailed SRS along with milestones	10%	Only after quality inspection and verification by the UPTSU representative

2.	Design and Development of UP Health Program Aggregation Platform Application Integration with other Application	10%	Only after quality inspection and verification by the Authority's representative of the conformity of the Goods/ Products/ Services/ Solutions supplied as per the agreed specifications
3.	Submission of UAT and Pilot Testing Report	30%	Only after quality inspection and verification by the Authority's representative of the conformity of the Goods/ Products/ Services/ Solutions supplied as per the agreed specifications
4.	Go-Live of Health Program Aggregation Platform & Mobile App	20%	Only after quality inspection and verification by the Authority's representative of the conformity of the Goods/ Products/ Services/Solutions supplied as per the agreed specifications
5.	• Software Design Documents like table design, relationships between tables, database Procedure details etc. should be included. • Functional and Integration Test Case Documents • Training and Capacity Building Related Material • API document for third party integration and at least one successful integration	10%	
8.	Delivery of the software source code.	20%	

iii.   Currency: The price is payable in local currency i.e. Indian Rupees.

6. Performance Guarantee

The Bidder shall provide the services and carry out their obligations under the Contract with due diligence, efficiency and professionalism/ethics in accordance with generally accepted professional standards and practices. The Bidder shall always act in respect of any matter relating to this contract. The Bidder shall abide by all the applicable provisions / Acts / Rules / Regulations, Standing orders, etc. of Information Technology standard as prevalent in the country.

The vendor shall be responsible for the performance of all its obligations under this Agreement and shall be liable for the acts and omissions of its employees in connection therewith.

10% of each invoice will be withheld as Performance Guarantee, which will be released at the end of the project i.e. 2 years** from the date of contract, based on timelines and quality of delivery. Details of quality indicators is as under:

In case of poor quality of deliverable, the vendor will be liable to bear penalty proportionate to the value as described below:

The total penalty amount shall not exceed 10% of the Project Value.

7. Eligibility criteria

Interested bidders must carefully read the minimum criteria of eligibility provided herein. Bids of only those bidders who satisfy the eligibility criteria will be considered for evaluation.

To be eligible for evaluation of its Bid, the bidder shall fulfil the following:

Sr. No.	Evaluation Criteria	Documents To Be Submitted
1	Minimum 7 years of experience in executing projects comprising of design, development, integration, implementation, operations and maintenance of public health projects and providing Change Management support for mobile /web applications to government, semi-government bodies	Work Completion certificate
2	Minimum 1 project worth 1 crore or 2 projects worth 50 lakhs or Minimum 4 projects worth 20 Lakhs or minimum 8 projects worth 10 lakhs complying the following criteria: • completed projects each (with project completion certificate) • Preferably projects in public health/government/semi-government	Work Order
3	Bidder must have at least 25 full time technical employees in its pay roll. The technical skills of these employees must cover server administrators, android and web developers (preferably JAVA), test engineers, project managers	Self-undertaking
4	Bidder should be registered in India under companies Act 1956/2013 or Partnership firm registered under the Partnership Act of 1932 or registered (converted to) under the Indian Limited Liability Partnership Act, 2008.	Certificate of incorporation
5	Bidder should not be blacklisted by Multi-Lateral Funding Agency / Govt. Of India/ any State Government / PSU's as on the date of bid submission	Self-undertaking
6	The Bidder must have average annual turnover of Rs. 2 Crore in last three financial year ending at 31/03/2020 from IT Services.	Self-certified copies of the balance sheet and profit & loss statement for the last 3 completed financial years
7	The Bidder must have positive net worth in last one financial year ending at 31/03/2020.	Self-certified copies of the balance sheet and profit & loss statement of last financial year
8	Acceptability of all conditions contained in the Tender Document by the Bidder. No further deviations to any mentioned clause shall be sought for.	Declaration in this regard by the authorized signatory of The Responder
9	The bidder will not Sub-Contract the work/contract awarded. An undertaking to this effect has to be submitted by the successful Bidder.	Self-undertaking
10	The bidder should have ISO 9001:2008 certification OR ISO 27001 Certification.	ISO certificate

11	The Sole Bidder or the Lead Member of consortium should possess the CMM level certifications which are valid as on last date of bid submission.	CMM level certification document

Eligibility criteria is listed at Appendix I6.

8. Technical Proposal

Bidders shall submit the Technical Bid in the formats specified in Annexure -I (the "Technical Bid").

Bidder shall furnish as part of Technical Bid, documents establishing its technical qualification as specified in Annexure I, to be eligible for the IT Service provider. The Bidder shall submit all documentary evidence in a pdf format in support of the information furnished, as given below.

S. No.	Criteria	Required Documentary Evidence
1	The Sole Bidder should have successfully executed or is executing projects comprising of design, development, integration, implementation, operations and maintenance of public health projects like Health Management Information System / Healthcare Management System (i.e. HMIS) in the last 7 years as on the last date of bid submission.	Submit any of the following client concerned document 1. Work orders OR 2. Agreements OR 3. Completion Certificate
2	Number of full time technical employees in its pay roll. The technical skills of these employees must cover server administrators, android and web developers(preferably JAVA), test engineers, project managers	Detailed Resume of the employees
3	Qualifications of proposed Manager: a. Post-graduate in relevant field with minimum 10 years of experience in IT preferably in Public Health sector b. Citation of at least 2 projects with a project component in following categories: • Public Health sector • Government/Semi-Government	Detailed Resume of the Proposed Team Leader
4	The Sole Bidder should have minimum average annual Turnover of INR 2 Crore for last 3 audited financial years (2017-18, 2018-19 and 2019-20) from Healthcare/HMIS /IT related services.	Balance sheet required
5	The Sole Bidder or the Lead Member of consortium should possess the CMM level certifications which are valid as on last date of bid submission.	CMM level certification document
6	Presentation of the Proposed Solution, Approach & Methodology: Overall approach towards data acquisition, Application development, installation, implementation and maintenance of the solution and project management plan)	
7	Minimum 1 project worth 1 crore or 2 projects worth 50 lakhs or Minimum 4 projects worth 20 Lakhs or minimum 8 projects worth 10 lakhs complying the following criteria: • completed projects each (with project completion certificate) • Preferably projects in public health/government/semi-government	Work Order

8	Bidder should be registered in India under companies Act 1956/2013 or Partnership firm registered under the Partnership Act of 1932 or registered (converted to) under the Indian Limited Liability Partnership Act, 2008.	Certificate of incorporation
9	Bidder should not be blacklisted by Multi-Lateral Funding Agency / Govt. Of India/ any State Government / PSU's as on the date of bid submission	Self-undertaking
10	The Bidder must have positive net worth in last one financial year ending at 31/03/2020.	Self-certified copies of the balance sheet and profit & loss statement of last financial year
11	Acceptability of all conditions contained in the Tender Document by the Bidder. No further deviations to any mentioned clause shall be sought for.	Declaration in this regard by the authorized signatory of The Responder
12	The bidder will not Sub-Contract the work/contract awarded. An undertaking to this effect has to be submitted by the successful Bidder.	Self-undertaking
13	The bidder should have ISO 9001:2008 certification OR ISO 27001 Certification.	ISO certificate

9. Financial Proposal

The bidder is required to quote the total project fee for the aforementioned scope of work (inclusive of OPEs and any other taxes, except GST) as part of the Financial Bid. No additional amount (except applicable GST) will be payable during the course of the assignment. Only once the Technical Proposal is ascertained to be qualified, corresponding Financial Proposal would be opened.

Financial Bid Format is at Annexure II

10.   Criteria for Evaluation of Bidders

The successful Agency will be chosen based on the basis of QCBS (Quality & Cost Based Selection) with the Technical and Financial weightage at **70** and **30** respectively.

10.1   A two-stage procedure shall be adopted in evaluating the proposals:

Stage 1 – Technical Bid Evaluation

Stage 2 – Financial Bid Evaluation

Technical Bid Evaluation (Stage-1)

i.   The technical evaluation emphasizes on the degree of confidence of the Evaluation Team in the proposal content and the Bidder's capability to deliver the outputs effectively.

ii.   This evaluation will be carried out on a total score of 100 on the basis of the following mentioned criteria.

Technical Evaluation Criteria and associated marks are mentioned as below:

S.No.	Evaluation Criteria	Evaluation Criteria
1	The Sole Bidder should have successfully executed or is executing projects comprising of design, development, integration, implementation, operations and maintenance of public health projects like Health Management Information	**Total Marks – 20** For projects cost>= INR 1 crore = 20 For project cost >= Rs. 50 Lakhs = 9 Marks per Project (max 2 projects)

	System / Healthcare Management System (i.e. HMIS) in the last 7 years as on the last date of bid submission.	For project cost >=Rs. 20 Lakhs = 4 Marks per Project (max 4 projects) For project cost >=Rs. 10 Lakhs = 2 Marks per Project (max 8 projects)
2	Number of full time technical employees in its pay roll. The technical skills of these employees must cover server administrators, android and web developers(preferably JAVA), test engineers, project managers	**Total Marks – 25** 25 to 40 employees: 10 marks 41 to 50 employees: 20 marks More than 50 employees: 25 marks

3	Qualifications of proposed Manager:
	a. Post-graduate in relevant field with minimum 10 years of experience in IT preferably in Public Health sector
	b. Citation of at least 2 projects with a project component in following categories:
	    • Public health sector
	    • Government/Semi-Government
		Total Marks – 15
		
		Qualification [4]: PG Degree: 1 marks, Relevant course/ certification: 1 marks, Tier 1 Institute: 1 mark each for UG and PG course
		Professional Experience [4]: 10-15 years: 1.5 marks, 15-20 years: 2.5 marks, 20+ years: 4 marks [steps of 0.5]
		Project Lead experience [1]: 1 mark
		Experience of 2 projects in public health sector [5], (cumulative): I – 2.5 marks, II – 5 marks
		1 mark for previous experience in UP

4	The Sole Bidder should have minimum average annual Turnover of INR 2 Crore for last 3 audited financial years (2017-18, 2018-19 and 2019-20) from Healthcare/HMIS /IT related services.	**Total Marks – 10** >= 15 Crores: 10 marks <15 and >=11 Crores: 8 marks <10 and >=2 Crores: 6 marks
5	The Sole Bidder or the Lead Member of consortium should possess CMM level certifications which are valid as on last date of bid submission.	**Total Marks – 10** CMMI Level 5: 10 Marks CMMI Level 3: 5 Marks
6	Presentation of the Proposed Solution, Approach & Methodology: Overall approach towards data acquisition, Application development, installation, implementation and maintenance of the solution and project management plan (Maximum 20 Marks)	**Total Marks – 20**

i. The technical bids/proposals scoring at least 70 points/marks would be considered for financial evaluation. A technical proposal failing to achieve 70 marks shall be rejected.

ii. In the second stage, financial proposals of those who have qualified the Technical screening would be evaluated and ranked to determine L1.

Financial Bid Evaluation (Stage-2)

i. Financial bid of only those bidders shall be considered who qualify the technical evaluation.

ii. The Financial Bids of technically qualified bidders will be opened on the prescribed date as per IHAT policy.

iii. IHAT will determine whether the Financial Proposals are complete, unqualified and unconditional. The cost indicated in the Financial Proposal shall be deemed as final and reflecting the total cost of services.

iv. The bidder with the lowest overall price, qualifying as Financial Proposal (L1) will be awarded 100 score (amongst the bidders that qualified on the basis of Technical evaluation and obtained marks above 70%). Financial scores for other than L1, bidders will be evaluated using the following formula:

Financial score of Bidder (SF) = {(Lowest price of Financial Proposal of L1/Price of the Financial Proposal of the bidder under consideration) X 100}

(Figures will be adjusted to two decimal places)

Final evaluation (shortlisting of bidder)

i. Points obtained by the Agency for both **Technical (70)** as well as **Financial (30)** scores would be clubbed for the final selection.

ii. The agencies will be ranked based on their Total Score and the agency scoring the highest points shall be selected.

iii. **Table: Marks for evaluation**

Sl. No.	Evaluation	Marks
1	Technical Evaluation	70
2	Financial Evaluation	30
	Total	**100**

Proposals will finally be ranked according to their combined technical (S_T) and financial (S_F) scores as follows:

$S = S_T \times T_W + S_F \times F_W$

Where,

S= is the combined score

ST and SF = Technical and Financial score of the bidder

T_W and F_W = Weights assigned to Technical Proposal and Financial Proposal, which

shall be 0.70 and 0.30 respectively.

The Selected Applicant shall be the first ranked Applicant (having the highest combined score). The second ranked Applicant shall be kept in reserve and may be invited for negotiations in case the first ranked Applicant withdraws, or fails to comply with the requirements specified.

Note: In the event the composite bid scores are 'tied', the bidder securing the highest technical score will be adjudicated as the Best Value Bidder for award of the Project.

11. Pre-Bid Queries

The agencies may submit their consolidated list of queries to procurement@ihat.in , before January 30, 2021 at 2359 hours.

12. Bid Submission

Bid Submission Deadline: **February 13, 2021** at 1800 hours.

Interested agencies are advised to submit Technical and Financial proposal (Hard copies in separate envelopes) along with all required document to below mentioned address. Please mention "Quotation for Management of Community Process Division Apps" over the sealed envelope.

Team Lead

India Health Action trust

404, 4th floor & 505, 5th Floor, Ratan Square

No. 20-A, Vidhan Sabha Marg

Lucknow-226001, Uttar Pradesh, India"

You may also reach out over email (procurement@ihat.in) for any further queries in this matter.

13. Award of Contract

On completion of the process of selection, the agency selected shall be awarded the contract. Within 30 days of selection, the agency should execute an agreement with IHAT.

14. General Instructions and Consideration

i.   The Client (called "IHAT") will select an organization/Agency in accordance with the method of selection specified in the RfP.

ii. The Applicants are invited to submit Technical and Financial Proposals (collectively called as - the Proposal), for the services required for the Assignment.

iii. The Proposal will form the basis for grant of work order to the selected Agency. The Agency shall carry out the assignment in accordance with the Scope of Work of this RfP.

iv. IHAT requires that the Applicant hold IHAT's interest paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The applicant shall not accept or engage in any assignment that may place it in a position of not being able to carry out the assignment in the best interests of IHAT and the Project.

v.   Applicants shall bear all costs associated with the preparation and submission of their proposals, and their participation in the Evaluation Process, including but not limited to postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by IHAT or any other costs incurred in connection with or relating to its Proposal.

vi. It is the IHAT's policy that the Applicants observe the highest standard of ethics during the Evaluation Process and execution of work/assignment. In pursuance of this policy, the IHAT:
   -   will reject the Proposal for award if it determines that the Applicant has engaged in corrupt or fraudulent activities in competing for the work order in question;
   -   will declare an Applicant ineligible, either indefinitely or for a stated period of time, to be awarded any contract or work order if it at any time determines that the Applicant has engaged in corrupt or fraudulent practices in competing for and in executing the work order.

vii. **Dispute Resolution**: If any dispute or difference of any kind whatsoever arises between the parties in connection with or arising out of or relating to or under this RfP, the parties shall promptly and in good faith negotiate with a view to its amicable resolution and settlement. In the event no amicable resolution or

settlement is reached within a period of thirty (30) days from the date on which the above-mentioned dispute or difference arose, such dispute or difference shall be finally settled by Executive Director, TSU, whose decision shall be final.

viii. The Agencies shall submit their proposal in two covers namely, Technical Proposal and Financial Proposal respectively. The technical evaluation will be carried out first and then a list of technically qualified Applicants shall be prepared in the order of their merit. The Financial Proposals of technically qualified Applicants will be thereafter opened.

ix. Number of Proposals: No applicant shall submit more than one application.

x. Misrepresentation of the content of RfP/ improper response by the applicant may lead to the disqualification of the applicant. If such disqualification/ rejection occurs after the proposals have been opened and the highest ranking applicant gets disqualified/ rejected, then the IHAT reserves the right to consider the next best applicant, or take any other measure as may be deemed appropriate at the sole discretion of the IHAT.

xi. Acknowledgement by Applicant:
It shall be deemed that by submitting the Proposal, the applicant has:

- made a complete and careful examination of the RfP;
- Received all relevant information requested from IHAT;
- accepted the risk of inadequacy, error or mistake in the information provided in the RfP or furnished by or on behalf of IHAT;
- satisfied itself about all matters, things and information, including matters herein above, necessary and required for submitting an informed application and performance of all of its obligations there under;
- acknowledged that it does not have a Conflict of Interest; and
- agreed to be bound by the undertaking provided by it under and in term hereof.

IHAT and/ or its advisors/ employees shall not be liable for any omission, mistake or error on the part of the Applicant in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to RfP or the Selection Process, including any error or mistake therein or in any information or data given by the IHAT and/ or its employee.

Annexure I1: Letter of Technical Proposal Submission Form

[Bidders are required to submit the covering letter as given here on their letterhead]

[Location, Date]

To,

India Health Action Trust,

404, 4th Floor, Ratan Square Building,

Vidhan Sabha Marg, Lucknow,

226001

RfP dated [date] for selection of Agency for [name of assignment]

Sir,

With reference to your RfP Document dated [date], we<name of agency>, having examined all relevant documents and understood their contents, hereby submit our Technical Proposal for selection as agency for [name of assignment]. The Proposal is unconditional and unqualified.

We are submitting our Proposal as [name of the applicant].

If negotiations are held during the period of validity of the Proposal, we undertake to negotiate in accordance with the RfP. Our Proposal is binding upon us, subject only to the modifications resulting from negotiations in accordance with the RfP.

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

Further:

1. We acknowledge that IHAT will be relying on the information provided in the Proposal and the documents accompanying the Proposal for selectio2n of the Agency, and we certify that all information provided in the Proposal and in the supporting documents is true and correct, nothing has been omitted which renders such information misleading; and all documents accompanying such Proposal are true copies of their respective originals.

2. This statement is made for the express purpose of appointment as the Agency for the aforesaid Project.

3. We shall make available to IHAT any additional information it may deem necessary or require for supplementing or authenticating the Proposal.

4. We acknowledge the right of IHAT to reject our application without assigning any reason or otherwise and hereby waive our right to challenge the same on any account whatsoever.

5. We certify that in the last 3 (three) years, we have neither failed to perform on any assignment or contract, as evidenced by imposition of a penalty by an arbitral or judicial authority or a judicial pronouncement or arbitration award against the Applicant, nor been expelled from any project, assignment or contract by any public authority nor have had any assignment or contract terminated by any public authority for breach on our part.

6. We declare that:

   a) We have examined and have no reservations to the RfP, including any Addendum issued by the Authority;

b) We do not have any conflict of interest in accordance with the terms of the RfP;

c) We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in the RfP document, in respect of any tender or request for proposal issued by or any agreement entered into with IHAT or any other public sector enterprise or any government, Central or State; and

d) We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

7. We understand that you may cancel the selection process at any time and that you are neither bound to accept any Proposal that you may receive nor to select the Agency, without incurring any liability to the Applicants.

8. We certify that in regard to matters other than security and integrity of the country, we or any of our affiliates have not been convicted by a court of law or indicted or adverse orders passed by a regulatory authority which would cast a doubt on our ability to undertake the Project or which relates to a grave offence that outrages the moral sense of the community.

9. We further certify that in regard to matters relating to security and integrity of the country, we have not been charge-sheeted by any agency of the Government or convicted by a court of law for any offence committed by us or by any of our affiliates. We further certify that neither we nor any of our consortium members have been barred by the central government, any state government, a statutory body or any public sector undertaking, as the case may be, from participating in any project or bid, and that any such bar, if any, does not subsist as on the date of this RfP.

10. We further certify that no investigation by a regulatory authority is pending either against us or against our affiliates or against any of our Directors/ Managers/ employees.

11. We hereby irrevocably waive any right or remedy which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by IHAT in connection with the selection of Agency or in connection with the selection process itself in respect of the above mentioned Project.

12. We agree and understand that the proposal is subject to the provisions of the RfP document. In no case, shall we have any claim or right of whatsoever nature if the Project is not awarded to us or our proposal is not opened or rejected.

13. The Financial Proposal is being submitted in a separate cover. This Technical Proposal read with the Financial Proposal shall be binding on us.

14. We agree and undertake to abide by all the terms and conditions of the RfP Document.

We remain,

Yours sincerely,

Authorized Signature [In full and initials]:
Name and Title of Signatory:
Name of Firm:
Address:
Telephone:
Fax:
(Name and seal of the Applicant/Member in Charge)

Annexure I2: Outline of the Relevant Experience (Refer Section 8)

Details as per the following format shall be submitted for each of the projects. This is a suggested format and the bidder may append additional details as required.

Project Title: *(Attach separate sheet for each project)*	
Country: States:	
Name and address of the client:	Duration of the Assignment:
Approx. value of the contract (In current INR):	
Type of Project	Government, semi-government or multilateral organization:
Whether project was dealing in public health	Yes/No
Start Date (month/year):	End Date (month/year):
Team size deployed for the project	
Narrative description of the Project: 	
Description of the actual services provided by the staff within the assignment 	
Relevance of Assignment 	

*Please attach copy of work order/completion certificate for each assignment.

Signature:

Name & Designation of the Authorised Signatory:
Name of Agency:
Address:
SEAL of the Agency:
Date:

The following project experience details to be filled by the Bidders for Technical Evaluation:

Summary of experience in similar projects

S.No	Name of the project	Name of the client	Type of Project (Software Integration/ Design & Development) a	Year of commencement of operations	Was project related to public health (Y/N)	Year of end of operations (if any)	Value of Works executing/executed

The following project experience details to be filled by the Bidders for Technical Evaluation:

Summary of experience in similar projects

| S.No | Name of the project | Name of the client | Type of Project | |

(To be certified by the statutory auditor)

(In Rs. Lakhs)

Bidder Name	Net Worth	Average Turnover of Three Financial Years Immediately Preceding the Bid

Signature of Statutory Auditor

Name of Statutory Auditor

Name of Company

Name & address of Bidder's Bankers:

Instructions:

1. The Bidder shall attach copies of the balance sheets, financial statements and Annual Reports in accordance with to the RfP. The financial statements shall:

    a) reflect the financial situation of the B2idder

    b) be audited by a statutory auditor

    c) be complete, including all notes to the financial statements; and

    d) Correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

Annexure I4: Core Team structure and composition – proposed Team Leader Cum Project Manager, Solution Architect, Test Engineer, Database Developer, UI/UX Developer, Programmer as well as minimum technical resources for maintenance and support services after Go-live for the period of 2 years - Team Leader Cum Project Manager, 2 Support Engineers (format to be used for each resource separately)

Details as per the following format shall be submitted by bidder:

Bidder Name	Team Size

Details of the Team Composition

Name	
Appointment/Role	
Educational Qualification	
Years of experience	
Type of Employment	
Skill areas	
Date of Employment with Present Employer	

Name of Institutions/ Organisation/Sector he/she has worked for:	Period from……to…….	Description of role/responsibilities

Attach separate sheet for each

Signature:

Name & Designation of the Authorised Signatory:

Name of Agency:

Address:

SEAL of the Agency:

Date:

Annexure I5: Qualification of proposed Team Leader Cum Project Manager, Solution Architect, Test Engineer, Database Developer, UI/UX Developer, Programmer as well as minimum technical resources for maintenance and support services after Go-live for the period of 2 years - Team Leader Cum Project Manager, 2 Support Engineers (format to be used for each resource separately)

Details as per the following format shall be submitted by bidder:

Professional Experience:

S.No.	Name of the Manager	Total Experience in Years	Relevant experience	Experience working in UP	Team Mgmt/ Project Lead experience

Academic Qualification of <   >:

S.No	Name of Course	Name of institute

Project Experience:

S.No	Name of the project	Name of the client	Type of Project	Project Related to Govt Agency(Yes/No)	Year of commencement of operations	Year of end of operations (if any)	Value of Works executing/executed

Signature of Authorized Person

Name of Authorized Person

Name of Company

Name & address of Bidder

Instructions:

1. The Bidder shall attach copy of the Manager resumes

Annexure I6: Eligibility Criteria

Sr. No.	Evaluation Criteria	Documents To Be Submitted	Compliance to Minimum Criteria? (Yes/No)	Document submitted as proof for evaluation
1	Minimum 7 years of experience in executing projects comprising of design, development, integration, implementation, operations and maintenance of public health projects and providing Change Management support for mobile /web applications to government, semi-government bodies	Work Completion certificate		
2	Minimum 1 project worth 1 crore or 2 projects worth 50 lakhs or Minimum 4 projects worth 20 Lakhs or minimum 8 projects worth 10 lakhs complying the following criteria: • completed projects each (with project completion certificate) • Preferably projects in public health/government/semi-government	Work Order		
3	Bidder must have at least 25 full time technical employees in its pay roll. The technical skills of these employees must cover server administrators, android and web developers (preferably JAVA), test engineers, project managers	Self-undertaking		
4	Bidder should be registered in India under companies Act 1956/2013 or Partnership firm registered under the Partnership Act of 1932 or registered (converted to) under the Indian Limited Liability Partnership Act, 2008.	Certificate of incorporation		
5	Bidder should not be blacklisted by Multi-Lateral Funding Agency / Govt. Of India/ any State Government / PSU's as on the date of bid submission	Self-undertaking		
6	The Bidder must have average annual turnover of Rs. 2 Crore in last three financial year ending at 31/03/2020 from IT Services.	Self-certified copies of the balance sheet and profit & loss statement for the last 3 completed financial years		
7	The Bidder must have positive net worth in last one financial year ending at 31/03/2020.	Self-certified copies of the balance sheet and profit & loss statement of last financial year		

8	Acceptability of all conditions contained in the Tender Document by the Bidder. No further deviations to any mentioned clause shall be sought for.	Declaration in this regard by the authorized signatory of The Responder		
9	The bidder will not Sub-Contract the work/contract awarded. An undertaking to this effect has to be submitted by the successful Bidder.	Self-undertaking		
10	The bidder should have ISO 9001:2008 certification OR ISO 27001 Certification.	ISO certificate		
11	Qualifications of proposed Manager: a. Post-graduate in relevant field with minimum 10 years of experience in IT preferably in Public Health sector b. Citation of at least 2 projects with a project component in following categories: • Public Health sector • Government/Semi-Government	Detailed Resume of the Proposed Team Leader		
12	The Sole Bidder or the Lead Member of consortium should possess the CMM level certifications which are valid as on last date of bid submission.	CMM level certification document		
13	Presentation of the Proposed Solution, Approach & Methodology: Overall approach towards data acquisition, Application development, installation, implementation and maintenance of the solution and project management plan)			

Appendix I7: Scope of Work

S. NO	Activities	Compliance (Yes/No)
1	Understanding the project requirement	
2	Feasibility Study on project implementation on both software and hardware grounds	
3	Requirement Gathering	
4	Design Solution architecture	
5	Development	
6	Operational and Functional testing	
7	Functional acceptance signoff	
8	Deployment on Production	
9	GO LIVE	
10	Implement a robust Service Management System for incident management, service request management, and change management to generate tickets for maintenance service requests with response tracking with date and time stamping	
11	Capability in transitioning the current deployment of application to the new environment with minimum downtime through a technical presentation/note	
12	Maintenance & Management of application both web and android	
13	Change Management in the applicatio8n on any new requirement	
14	Preparing documents according to the client needs	
15	Integration with other platforms	
16	Server Maintenance and ensuring uptime of the server	
17	Extensive knowledge in Cloud Server Management (Virtual Machine and Containerization)	
18	Provisioning of Enterprise level support or Equivalent for software licenses as mentioned in the RFP. Covering updates, upgrades, security patches, issue resolution at software level, bug fixing etc.	
19	24x7x365 Support, Cloud service Provisioning, de- provisioning, up-dations, auto-scaling, security, firewall, anti-virus, bandwidth etc.	
20	Resource Deployment at IHAT office LKO	

Annexure II: Standard Formats for the Financial Proposal

Annexure II1: Letter of Financial Proposal Submission Form

Annexure II2: Financial Proposal

Annexure II1: Financial Proposal Sub2mission Form

[Date]

To,

India Health Action Trust,

404, 4th Floor, Ratan Square Building,

Vidhan Sabha Marg, Lucknow,

226001

Dear Sir,

Subject: Services for [name of assignment].

We, the undersigned, offer to provide the services for [name of assignment] in accordance with your Request for Proposal dated [date] and our Proposal. Our attached Financial Proposal is for the sum of [amount(s) in words and figures].

Our Financial Proposal shall be binding upon us subject to the modifications resulting from arithmetic correction, if any, up to expiration of the validity period of the Proposal, i.e. [date].

We undertake that, in competing for (and, if the award is made to us, in executing) the above assignment, we will strictly observe the laws against fraud and corruption in force in India namely —Prevention of Corruption Act 1988.

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

Yours sincerely,

Authorized Signature [In full and initials]:

Name and Title of Signatory:

Name of   Firm:

Address:

Annexure II2: Financial Proposal

Financial Implications for scope of work defined in RfP should be as per below format:

S.no	Activity	Cost INR in Figures	GST @ 18% in Figures	Total	Cost INR in words (inclusive of all taxes)
A	B	C	D	E=C+D	F
1	Design / development / implementation/ Integration of Web application				
2	Design and Development of Mobile Application (Android/iOS)				
3	Annual Maintenance Cost after implementation and warranty period with onsite Technical coordinator. Mention in percentage as well				

Note: This is the suggestive commercial proposal format which may be amplified by the bidder based on the proposal.

Notes:

- The prices stated in the Contract shall be deemed to include all amounts.

- Bidder must submit their financial bid for the total scope of work.

- Taxes would be payable at the applicable rates as2 may be in force from time to time.

- Financial proposal will be shared for year. Contract duration will be two years.