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REQUEST FOR PROPOSALS

RFP NO: PPHF/RFP/2023-24/001

Request for Quotation (RFP) - ELECTRONIC MEDICAL RECORD (EMR) FOR MOBILE MEDICAL UNIT (MMU)

PART A: COVER PAGE

Issuance Date : 26 June 2023

Questions Due Date/Time: 30 June 2023

Response to Query Date : 03 June 2023

Proposal Due Date/Time : 05 June 2023

Background

PEOPLE TO PEOPLE HEALTH FOUNDATION (PPHF) is a non-government organization committed to transforming lives for improved health and wellbeing through locally driven solutions. PPHF have been working with Ministry of Health and private sectors in India to address the health program and policy implementation gaps. PPHF has very intensive experience in building capacity of health system and mobilize community for uptake of better health services. PPHF provides technical support on quality public health delivery, capacity strengthening and health technology. Besides that, PPHF generate new knowledge through implementation and demonstration for better programming and scaling up and has expressed its willingness to act as implementation partner in the execution of the Project

Objective:

Development and Maintenance of EMR application and IT Infrastructure for 2 Mobile Medical Units

This RFP document includes the following parts:

PART A : Cover Page

PART B : Instructions to Bidders

PART C : SoW



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All proposals, inquiries, and correspondence pertaining to this solicitation are to be directed to the email ID: connect@pphfglobal.org

PPHF is pledged to the highest standards of ethics and integrity in procurement. PPHF has zero tolerance for fraud PPHF selects vendors purely on merit and will only engage vendors who demonstrate strong business ethics. Vendors must not participate in bid-rigging, who do so will be disqualified from doing business with PPHF. Additionally, PPHF has a conflict-of-interest policy that requires staff to disclose when there is a potential conflict of interest due to the staffmember's relationship with a vendor, and if necessary, to refrain from participation in a procurement involving that vendor.



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PART B: INSTRUCTIONS TO BIDDERS

1. DEFINITIONS

Bidder: The firm providing proposals for the services requested under this RFP.

Contractor/Vendor: The firm awarded the services requested under the RFP in the form of a PO/contract.

Buyer/Client: People to People Health Foundation (PPHF)

2. PROPOSAL SUBMISSION AND REQUIREMENTS

Bidders are encouraged to read the RFP document in its entirety and ensure that their quotation addresses all of the items cited in the proposal instructions. All quotation must be submitted by the deadline established in the RFP. Offers received after this due date and time will not be accepted for consideration.

Questions

All questions or clarifications regarding this RFP must be in writing and submitted to connect@pphfglobal.org, no later than **30 June 2023**

Questions and requests for clarification, and the responses thereto, will be circulated to all RFP recipients who have indicated interest in this RFP.

Only written answers from PPHF's authorized representative will be considered official and any answers received outside the official channel, whether received verbally or in writing, from employees of PPHF, or any other party, will not be considered official responses regarding this RFP.

Submission of Proposals:

The bidder's quotation must be accompanied by a cover letter typed on official organizational letterhead and signed by an individual who has signatory authority for the bidder. The bidder must submit a complete quotation package on or before the due date and time **(05 June 2023 by 17:30 Hrs).** All proposals, inquiries, and correspondence pertaining to this solicitation are to be directed to the email ID: connect@pphfglobal.org only with the subject line "RFP No: PPHF/RFP/2023-24/001"

The proposals must be prepared in two separate volumes:

- i. Technical Proposal; and
- ii. Financial Proposal.

The written proposal must contain the following information and documentation:

i) Technical Proposal Requirements

a) Proposed Plan and Approach

The Technical proposal shall describe how the bidder intends to carry out the SoSW as stated in Part C. It should be concise, specific, complete, and demonstrate a clear understanding of the work to be undertaken and the responsibilities of all parties involved. It must demonstrate



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the bidder's eligibility, as well as their capabilities and expertise in conducting each step of the activity.

Bidders shall include only information necessary to provide a clear understanding of the proposed action and the justification for it. Greater detail than necessary, as well as insufficient detail may detract from a proposal's clarity.. If acronyms or abbreviations are used, include a separate page explaining the terms.

b) Capabilities and Past Performance

The bidder must submit a capabilities statement along with documentary evidence of three past performances.

The capabilities statement will be used to evaluate the bidder's organizational, financial, and technical capacity, in relation to the Terms of Reference in Part C. The Capabilities Statement must include but is not limited to size of the agency, financial resources available to complete this work, staffing competencies and capabilities, past experience performing similar work with other donor organizations, and a company profile and/or brochure.

c) Other requirements

S. No	Item	Information/Inputs to be filled/provided by the Agency
Agency	Details	
1.	Name of the agency / company	
2.	Registered Address of agency / company	
3.	Company telephone// mobile number, email address	
4.	Website of the agency/ company	
5.	Type of organization (Whether Proprietorship, partnership, private proprietor/partners)	
6.	Directors/Proprietor/Partners Name, address, contact no and email id of the	
7.	Name and contact details of Authorized Representative	
8.	Year of formation of the agency/company	
9.	GST Registration Number	
10.	Agency Registration Number	
11.	MSME Registration No	
12.	PAN No	
13.	Type of Service	



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14. Place of Service	
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ii) Financial Proposal Requirements

- 1. The bidder should submit their most competitive and complete cost proposal in the attached Financial Proposal template.
- 2. All costs must be stated in INR.
- 3. Please indicate all prices exclusive of GST.
- 4. All proposed costs must be directly applicable to performing the work under the award and budgeted amounts should not exceed the market cost/value of an item or service.

The technical and financial proposal must be sent in separate files on the designated email subject line "RFP NO: PPHF/RFP/2023-24/001

Technical proposals must not make any reference to pricing data in order to ensure the evaluation of the technical proposal strictly on the basis of technical merit. **AWARD**

PPHF intends to issue a Purchase Order (PO) payable on the basis of receipt of all deliverables/services within the timelines mentioned and agreed.

3. EVALUATION CRITERIA

Proposals will be evaluated first to ensure that they meet all mandatory requirements and are responsive. To be considered responsive, a proposal must include all documentation as listed in section 2. Proposals that fail to meet these requirements will receive no further consideration. A non-responsive proposal to any element may be eliminated from consideration.

Responsive proposals will be evaluated and ranked by a committee on a technical basis according to the criteria below. Those proposals that are technically acceptable shall then be evaluated in terms of cost.

For the purpose of selection, the bidders will be evaluated based on a weighted point scale (totalling 100 points) against both the technical and financial criteria as indicated in the table below.

No.	Criteria	Points	
A. TI	A. TECHNICAL:		
1	Understanding of the context, possible ways of approaching the context and converting it into a narrative (max 3 pages)	15	
2	Relevant experience of the agency in understanding & executing similar assignments, (<i>Please attach/provide links of 2-3 samples.</i>) (Max 3 pages)		
3	Technical approach and operational plan including proposed process for providing the solutions (max 4 pages)	20	
4	Experience of key personnel to be engaged in the project. (<i>Please attach brief CVs of key personnel.</i>) (Max 2 pages for each CV).	10	



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	Total Technical	70	
B. F	B. FINANCIAL PROPOSAL:		
1	Reasonableness of proposed budget (See Financial proposal requirements)	40	
	Total Financial	40	
GRA	100		

4. TERMS OF AWARD

This document is a request for proposals only, and in no way obligates PPHF to make any award. Any expenses incurred in excess of the agreed upon amount in the Purchase Order(s) will be the responsibility of the contractor and not that of PPHF. Therefore, the bidder is duly advised to provide its most competitive and realistic proposal to cover all foreseeable expenses related to provide requested services.

All deliverables produced under the future award/contract shall be considered the property of PPHF. PPHF may choose to award a contract for part of the activities in the RFP. PPHF may choose to award a contract to more than one bidder for specific parts of the activities in the RFP.

5. PROPOSAL VALIDITY

The bidder's technical and cost proposals must remain valid for not less than 180 calendar days after the deadline specified above. Proposals must be signed by an official authorized to bind the bidder to its provisions.

6. PAYMENT TERMS

PPHF payment cycle is net 15 days upon receipt of deliverables to the satisfaction of activity manager, goods/services, inspection and acceptance of services as in compliance with the terms of the award and receipt of vendor invoice. Full cooperation with PPHF in meeting the terms and conditions of payment will be given the highest consideration.

7. FINANCIAL RESPONSIBILITY

Bidders must include in the capabilities statement that they have the resources to complete the proposed activities within the period of performance and under the terms of payment outlined below. PPHF reserves the right to request and review the latest financial statements and audit reports of the vendor as part of the basis of the award.

8. LANGUAGE

The proposal, as well as correspondence and related documents, should be in English.

9. **NEGOTIATIONS**

The bidder's most competitive proposal is requested. It is anticipated that any award issued will be made solely on the basis of bidder's proposal. However, PPHF reserves the right to request responses to additional technical, management and cost questions which would help in negotiating and awarding a contract. PPHF also reserves the right to conduct negotiations on technical, management, or cost issues prior to the award of a PO. In the event that an



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agreement cannot be reached with bidder, PPHF will enter into negotiations with alternate bidders for the purpose of awarding a PO without any obligation to previously considered bidder.

10. REJECTION OF PROPOSALS

PPHF reserves the right to reject any and all proposals received, or to negotiate separately with any and all competing bidders, without explanation. PPHF would communicate the result only with the selected bidder; separate communication to those rejected would not be sent and no queries in this respect would be entertained by PPHF.

11. INCURRING COSTS

PPHF is not liable for any cost incurred by bidders during preparation, submission, or negotiation of an award for this RFP. The costs are solely the responsibility of the bidder.

12. MODIFICATIONS

PPHF reserves the right, in its sole discretion, to modify the request, to alter the selection process, to modify or amend the specifications and scope of work specified in this RFP.

13. CANCELLATION

PPHF may cancel this RFP without any cost or obligation at any time until issuance of the award.



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PART C:

SCOPE OF THE PROJECT: ELECTRONIC MEDICAL RECORD (EMR) FOR MOBILE MEDICAL **UNIT (MMU)**

The RFP is floated with the intention to provide for developing, maintaining the EMR for 2 Mobile Medical Units in Rajasthan.

Electronic medical record (EMR): EMR is a repository of information regarding the health of a subject of care in computer-processable form that is able to be stored and transmitted securely, and is accessible by multiple authorized users. An Electronic Medical Record (EMR) will be used to create a digital version of a patient's paper chart. An Electronic Medical record will store information about a patient's health history, such as diagnoses, medicines, tests, allergies, immunizations, and treatment plans, etc. EMR will provide real-time, patientcentered records that make information available instantly and securely to authorized users.

Objective:

Development and Maintenance of EMR application and IT Infrastructure for 2 Mobile Medical Units

Obligations of the Service Provider:

It is expressly agreed that the Service Provider shall be responsible and liable for all its obligations under this Agreement. The Service Provider shall at its own cost and expense develop and provide the EMR software for clinical services to patients through MMUs. The website shall also provide various reports which may be useful for contractor. The service provider has to ensure that the software being used for the Project is up-to-date and always abiding by current regulations, to ensure optimum services;

Development and maintenance of MMU IT Application: EMR Application will work as a tool for collecting, storing, retrieving and exchanging the clinical information of the patients. The same information will be available for analysis and developing MIS reports. Access user rights of IT Application will be made available to the contractor. Following modules shall be managed through the application –

SL	Name of the module
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1	Patient Registration		
2	Patient Record		
3	Laboratory Test Management		
4	Patient Treatment Management		
4	Drug Dispensation		
5	Patient Referral		
6	Asset Management, Drugs & Supplies		
8	Dashboard		
9	Synchronization Module		

High level scope of work related to EMR Application

The Service Provider shall be expected to perform the following activities as a part of development, deployment, roll out & maintenance of IT Application. The detailed requirement for each area of the scope is provided in the subsequent sub-sections.

- 1. Detailed Design of IT system Architecture
- 2. Software Application Development and Rollout
- 3. Deployment and commissioning of Hosting infrastructure for the MMU IT Application
- 4. Training and handholding of FLW
- 5. Deployment of all the modules

The following sections provide details on the specific activities expected to be performed under each of the above mentioned areas. The detailed functional and technical requirements for MMU IT Application have been provided in the RFP.

1. Detailed Design of Application System Architecture

- 1. The Service Provider shall develop a detailed MMU IT System Architecture to meet the requirements specified in the RFP.
- 2. The activities in this area shall include:
- a. Business Architecture Development of Business Architecture will comprise of Business Process Mapping and detailing of system requirements based on inputs provided in the RFP.
- b. Application Architecture Development of Application architecture which will meet the functional and non-functional requirements as been specified in the RFP.
- c. Data Architecture Development of Data Model Definition and Master Data Management Requirements. The Service Provider will have to study the data capture formats and identify before developing the software:
 - i. Fields which are redundant
 - ii. Fields which are best managed in the form of Master Data



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- d. Technology Architecture Technology Architecture will cover the requirements related to the server, storage, network and security.
- e. Load Estimation: an indicative load estimation is provided below -
 - 40-50 patients per day per MMU
 - The average minimum number of trips per month per MMU should be 24.

Architectural Principle

It is important that the SI (System Integrator) takes into account certain architectural principles while designing the solution, some of which are:

- a. Technology Independence: Applications should preferably be independent of specific technology choices and therefore shall be able to operate on a variety of technology platforms and shall not be dependent on specific hardware, operating systems software or platform.
- b. *Service Oriented Architecture:* Service Oriented Architecture should be the preferred architecture for software implementation to help future integration and addition of new systems.
- c. Ease of Use: The underlying technology needs to be transparent by having ease of use principle, training can be kept to a minimum thereby aiding IT change management and the risk of using a system improperly can be minimized.
- d. *Interoperability:* The ability to have applications and computers from different sources and platforms work seamlessly together on and across networks is the key to sharing resources and reduction in long-term development costs.
- e. *N-Tier model:* N-Tier model with application user interface, logic, data, and their associated processing in separate layers from each other in logical manner would be preferred model.
- f. *Integration Needs:* The system should be capable to integrate with other systems that may be implemented in future. Information exchange with other government systems in future should be seamlessly possible. The application should be capable of integrating teleconsultation services and store the patient records on the server.
- g. *Extensibility and scalability:* Applications needs to evolve to support new business requirements and make use of new technologies beyond the scope of RFP. Application shall provide interfaces and service to integrate harmoniously with other applications

2. Software Application Development, testing and its rollout:

- The Service Provider shall perform software application development and testing in line with CMMI Level 3 standards or above for development and ISO/IEC 27001:2013 for Information Security Management System to meet the requirements specified in in the REP.
- 2. Ayushman Bharat Digital Mission (ABDM) Compliance: The applicant or EMR vendor's product should be ABDM compliant. (For more details refer to https://sandbox.abdm.gov.in/docs/integration_and_exit_process)



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- 3. The Service Provider shall conduct User Acceptance Testing with a sample of 15-20 Users. The feedback collected from UAT shall be prioritized and incorporated suitably into the application prior to the rollout.
- 4. The Service Provider shall be responsible for setting up the development and testing environments
- 5. The Service Provider is required to conduct detailed requirements gathering and arrive at the specifics of the data fields to be captured, the reports to be generated in the system, and the third party integration required as part of development of the Software Requirements Specifications document. The same, once approved by the contractor shall form the basis of all data reporting and monitoring and evaluation activities envisaged as part of the MMU-IT program.
- 6. As part of the roll out, the Service Provider shall be responsible for consolidating and porting into the application any Master Data that is required for the effective functioning of the application.
- 7. The Service Provider shall plan for releases of software systematically and ensure the rollout should happen in timely manner. It is suggested to perform releases after due field testing, stabilize the version and then release to MMUs simultaneously.

3. Sizing, Provisioning, Deployment and Commissioning of Hosting infrastructure for the MMU-EMR Application

- 1. The Service Provider shall be responsible for sizing of the infrastructure required for hosting the EMR application in line with the service levels expected.
- 2. The Service Provider shall be responsible for provisioning and deployment of the infrastructure as required.
- 3. The Service Provider shall need to host the solution in a co-located data centre or cloud such that data resides only in servers located in India. The detailed technical requirements for Data Privacy are provided in in the RFP and the same need to be complied with.
- 4. All the EMR data should be stored for whole project period. Back up the data will be taken and provided to contractor every 3 months in hard drive.
- 5. When the contractor asks for the requested data, the SP must provide it.

4. Training and handholding of all MMU staff:

- 1. Training and handholding of all MMU staff is an important responsibility of the Service Provider in this project.
- 2. The Service Provider is responsible for adopting the appropriate training and handholding approach to ensure that the MMU healthcare operations objectives are achieved.
- 3. The Service Provider shall be responsible for developing the training and capacity building strategy for EMR platform.



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- 4. Training content with respect to EMR Application shall be developed and delivered in Hindi
- 5. The Service Provider shall be responsible for providing hard bound training material hand-outs to each designated MMU staff with adequate amount of graphics/images and easy readability to support learning;
- 5. **Deployment of Modules:** All the modules should be developed, tested, approved and deployed before commencement of operations in the field.

Design standards:

Data Privacy Standards - Protected Health Information

- a. The data being collected as part of the MMU EMR Application about the end beneficiaries, viz., men, women and children falls under the category of Protected Health Information.
- b. Protected health information (PHI) is any information about health status, provision of health care, or payment for health care that can be linked to a specific individual.
- c. The MMU-SP shall be responsible for managing and ensuring the privacy of this information.
- d. Specific data protection modalities would need to be worked out by the MMU-SP in consultation with contractor.
- e. All personally identifiable information must be encrypted on transmission, storage, backup and retrieval.
- f. Any data privacy breach (data leakage) must be notified immediately to the contractor and such breach shall be construed as Service Provider's Event of Default.
- g. Access to personally identifiable information shall be secure and must be accessible only to Authorized personnel. The list of authorized personnel with access to personally identifiable information is always known.
- h. Detailed audit logs will be available to track and trace access to personally identifiable information.
- i. No biometric, audio, video, photographic personal data shall be downloadable from the application for offline use or into a storage system or server or backup device.
- j. In addition to the above, the SP shall be required to comply with any laws or guidelines pertaining to Information Security, Data Protection, cloud usage regulation and Data Privacy as may be promulgated or issued by the Authority or by any competent authority under the Government of India or the Government of Rajsasthan which may be applicable to this project including but not limited to those issued under the Information Technology Act, 2005.

A. Detailed Functional Requirement specifications



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This section describes in detail the functional requirements to be met by the SP in the overall development of EMR Application system. The SP is required to study the indicative Functional requirements (as defined below) in detail and develop them further into Software Requirement Specifications (SRS).

Overall the application shall have function-specific modules to record the various operational aspects of NMMU project. The MMU IT Application should have provision for online & offline usage of application so that the operations are not hindered due to poor / no communication links and the records / data/database can be synced with the centralized database.

S.N	Module name	Requirement description	Indicative list of fields for module
1	Patient registration management	In the first visit each patient shall be registered with a unique registration ID in following ways: Existing government IT platforms like NCD application, E-Sanjeevani will be leveraged for generation of ABHA ID for each patient, which will be entered in the IT application. In case of non-availability of any address proof / mobile number, the logic should be deployed by SP for generating unique ID, which will be stored in EMR along with patient's clinical data for future reference. The solution shall allow user to choose the type of the registration activity - new registration or registration maintenance (update/modify existing registration details) before proceeding further. The solution shall be able to retrieve the patient's data for follow up purpose.	1



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		The solution shall have data validation checks and shall intimate the user if data has been incorrectly entered. Fields should be numeric with limited number of integers, alpha numeric, alphabetic as per the requirement and should restrict wrong entry.	
2	Patient record management	Broadly the form shall have around 15 to 20 fields /details which shall also have the details of the health services taken by the patient along with other health related data of the patient including prescribed medicine, diagnostics, test results etc. The patient record shall also be linked to patient ID.	Reason for Visit, Present History, Past History, Personal History, Family History, Menstrual & Obstetric History, Socio-economic Status, Immunization History, Allergy Status, Allergy History, Clinical Exam, Clinical Exam Observation, Investigation Results, Clinical Summary, Diagnosis Type, Diagnosis Code Name, Diagnosis (Description), etc.
3	Laboratory Test Management	Medical Officer to generate test requisition form (TRF) from available test menu for further clinical evaluation which would reflect in laboratory technician's interface. LT would perform the tests as per TRF and enter the observed values in the modules, which will be available in printable format. Once the results are entered, it will reflect in MO's interface.	Type of test to be selected from test menu, entering the values of tests conducted, etc.
4	Patient Treatment Management	The MO would enter the prescription in the treatment interface.	Treatment Plan Medication, Treatment Plan Procedure, Other type of Treatment Plan (Diet/Life-style/ Others), Current Clinical Status, etc.
5	Drug Dispensation	Interface for pharmacist / Staff Nurse which would capture medicines being dispensed to the patients. OPD slip will be available in printable format, which shall be given to patients.	Medication Name, Drug Code, Strength, Dose, Route, Frequency, etc.



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6	Patient Referral	The referrals of the patients shall be captured and follow-up status, if relevant. Referral slip in printable format shall be generated for patients.	Treatment Plan Referral
7	Asset Management	All assets of a MMU shall be mapped along with the details of make, serial number, warranty period etc.	Name of Asset, number of asset, status of asset (functional / non functional)
8	Drugs & Supplies Management	The details of the drugs & supplies available in the MMU and their utilization rate will be captured. Appropriate linkages with the store should be there for stock movement and adequate availability in MMU.	Name drugs supplied, current available quantity, drugs consumption pattern, demand generation, etc.
9	Biometric based attendance management	Biometric based attendance system for capturing the attendance of MMU Staff attendance.	Time stamp of biometric
10	Synchronization Module	Since the machines may also work in an offline mode, a two way synchronization from the client application to the central application should also be provisioned. The synchronization shall be done as per the procedures / intervals defined by the contractor.	
11	Other Requirements: Security control & standards	The application should have security controls at all levels with proper user authentication and access matrix. Adherence to various standards should also be there.	
12	Provision for Integration with telemedicine	The Solution shall have interface for MO to get specialist opinion. Clinical history of the patients shall be reflected to specialist's screen. The interface should allow virtual interaction between hub (Specialist Interface) and spoke (MO interface). The data captured and call log should be strictly abided by MEDICAL ETHICS, DATA PRIVACY & CONFIDENTIAILITY and only accessible to authorized stakeholders. The consent of patients should be captured.	Field for consent, Separate login access to MO at spoke and specialist at hub, exchange of patient history with specialist's window; mapping of hubs with spokes, fields for specialist's examination, tests recommended, diagnosis, treatment, etc. The window should provide field for display of live video interaction between spoke and hub.



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	13	Other Solution requirement	The solution design should have scalability, availability, backup, disaster recovery etc.	
-	14	Dashboard for the project	The solution shall have the dashboard related to all the MMU field level activities being undertaken. The access to the dashboard needs to be provided to the contractor	MMUs route plan details, MMU's patient's data analysis,
	15	Data Management	The solution shall be able to store the data till the time it is transmitted to the server. The solution shall be configurable to prevent corruption or loss of data already accepted into the solution in the event of a solution failure. The data log shall be captured with the timestamp.	MIS Reports will be generated

B. Security requirements

- The solution shall be configurable to prevent corruption or loss of data already accepted into the solution in the event of a solution failure
- The solution shall support protection of confidentiality of all Protected Health Information (PHI) delivered over the Internet or other known open networks with compliance to existing norms.
- The solution, when storing PHI on any device shall support use of standards based encrypted format using 3DES, AES or their successors.
- In the event that a solution does not support pre-login capabilities, the solution shall display the banner immediately following authorization.
- The solution shall ensure that the inbound and outbound data stream on third party data from external data sources shall be secured
- The solution shall record any change to the registration record in a log with details like name of the user making the changes, timestamp of transaction, etc.
- The solution shall maintain a log of all user activities related to access view and printing of the validation of the registration validation list. The log, among other details, shall include the user id, access date and time, and type of accesses made. The log shall be linked to the registration record and available for access for the authorized users.
- The solution shall ensure that registration data is accepted only when submitted by a human and not by an automated program



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- The solution shall provide secure and automatic access to external web services