



REQUEST FOR PROPOSALS:
Assessment of eCR Scalability and Resilience Plans

December 15, 2020

www.aphl.org

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Silver Spring, Maryland 20910

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Table of Contents

<i>Section One: General RFP Information.....</i>	<i>3</i>
Purpose	3
Period of Performance.....	3
Eligibility.....	3
Anticipated RFP Schedule	3
Communications.....	3
Response Submission Deadlines	4
<i>Section Two: Background, Goals and Objectives, Funding, Scope of Work, and Response Instructions.....</i>	<i>5</i>
Background.....	5
Funding Information	6
<i>Scope of Work</i>	<i>7</i>
<i>Proposal Structure and Content.....</i>	<i>8</i>
<i>Evaluation of Responses.....</i>	<i>9</i>
Post-Evaluation Procedures	10
Conditions of Award Acceptance	10
Conflict of Interest	10
Disclaimer and Other General Matters	11

Section One: General RFP Information

Purpose

The Association of Public Health Laboratories (APHL) Informatics program has released this Request for Proposals (RFP) to solicit bids from qualified applicants to: (a) evaluate the APHL Informatics Messaging Services (AIMS) electronic case reporting (eCR) platform on defined categories stated in the RFP, and (b) recommend strategies and solutions for process and performance improvement of the AIMS eCR.

Period of Performance

APHL will work closely with the successful awardee(s) to determine the period of performance based on a final agreed upon scope of work; however, the initial period of performance will have an end date of June 30, 2021. APHL may consider additional work orders post June 30, 2021, dependent upon funding availability, project direction, and awardee performance.

Eligibility

This is an open and competitive process.

Anticipated RFP Schedule

The following dates are set forth for informational and planning purposes. APHL will communicate any modification to this anticipated schedule on APHL's procurement website (www.aphl.org/rfp) and via email to all applicants that submitted a [letter of intent](#).

Note: All due dates are 5:00 pm ET unless otherwise indicated:

December 15, 2020	RFP Issued
December 21, 2020	Informational Teleconference (Q&A)
December 22, 2020	Required Letter of Intent Due to APHL
December 23, 2020	Final Questions or Clarifications Due
January 15, 2021	RFP Responses Due
January 18 – 29, 2021	Proposal Review and Evaluation (follow-up interviews if needed)
February 1, 2021	Final review completed, and awardee selected

Communications

RFP Questions and Clarifications

This RFP is designed to provide the necessary information applicants need to prepare competitive proposals for the work described; it is not intended to be comprehensive. Each vendor is responsible for determining all the factors and information necessary to submit a comprehensive bid proposal to APHL. Vendors are invited to submit questions and requests for clarification regarding the RFP. All communication should be in the form of an email submitted to the identified APHL email address: informatics@aphl.org.

Questions and requests for clarification must be in writing and received by close of business on December 23, 2020.

APHL Email Contact

APHL requests that applicants refrain from phone calls or verbal RFP questions and clarification requests except when specifically initiated by APHL staff.

APHL will manage all RFP communication with applicants through a central email inbox. **Applicants will send all questions, clarification requests, and [letters of intent to informatics@aphl.org](mailto:informatics@aphl.org).**

RFP Materials

APHL will post all RFP-related documents, current schedule information, and answers to submitted questions and clarifications on APHL's procurement site, www.aphl.org/rfp.

RFP Page Limit and Formatting Specifications

An applicant's proposal must be limited to 15 pages of narrative and visuals. If an application exceeds this 15-page limit, only the first 15 pages will be sent to the evaluation team, and review scores will be based solely on the portion of the proposal submitted for review.

An application should have a font size of 11 points or larger and page margins of at least 0.5 inches.

Informational Teleconference (Optional)

APHL will hold an optional teleconference on **December 21, 2020 at 3:00 pm ET**.

This call will provide potential applicants an opportunity to ask APHL and CDC partners clarifying questions ahead of the required letter of intent. APHL requests that potential applicants send questions to informatics@aphl.org as these questions arise, please do not wait for the teleconference.

Informational Teleconference Call-in Information:

Applicants may contact informatics@aphl.org to receive a calendar invitation.

Time: December 21, 2020 at 3:00 pm ET

Join Zoom Meeting:

<https://aphl.zoom.us/j/97573580094?pwd=akl1SXNoeUFxMUVmdTdVdWFORytQQT09>

- Meeting ID: 975 7358 0094
- Passcode: 831529
- One tap mobile
 - +13017158592,,97573580094#,,,,,0#,,831529# US (Washington D.C)
 - +13126266799,,97573580094#,,,,,0#,,831529# US (Chicago)

Response Submission Deadlines

APHL will follow the [anticipated RFP schedule](http://www.aphl.org/rfp) unless otherwise modified on APHL's procurement site <http://www.aphl.org/rfp>. Applicants must meet three important submission deadlines related to this RFP. The letter of intent email, final response submission and revised or updated submission. Applicants who submit proposals in advance of the deadline may withdraw, modify, and resubmit proposals at any time prior to the indicated deadline.

Letter of Intent

Applicants must submit a letter of intent, via email, to informatics@aphl.org. **APHL must receive the letter of intent email no later than 5:00 pm ET on December 22, 2020.**

To allow for appropriate review process planning, APHL requires that prospective applicants submit a brief email statement indicating an intent to submit an RFP response along with the identity and contact details of the responsible party.

Final Submissions

APHL must receive complete applicant responses no later than 5:00 pm ET on January 15, 2020. Applicants should send submissions to informatics@aphl.org, with a copy to Leslie McElligott, Specialist, Informatics (leslie.mcelligott@aphl.org). It is the applicant's responsibility to ensure that the proposal is delivered to APHL by this deadline. Applicants must address the required proposal elements for the response to qualify as "complete." APHL may terminate or modify the RFP process at any time during the response period. APHL will acknowledge the receipt of the applicant's complete RFP response via email within 48 hours of submission. If you do not receive an acknowledgment please email informatics@aphl.org to confirm receipt.

Section Two: Background, Goals and Objectives, Funding, Scope of Work, and Response Instructions

Background

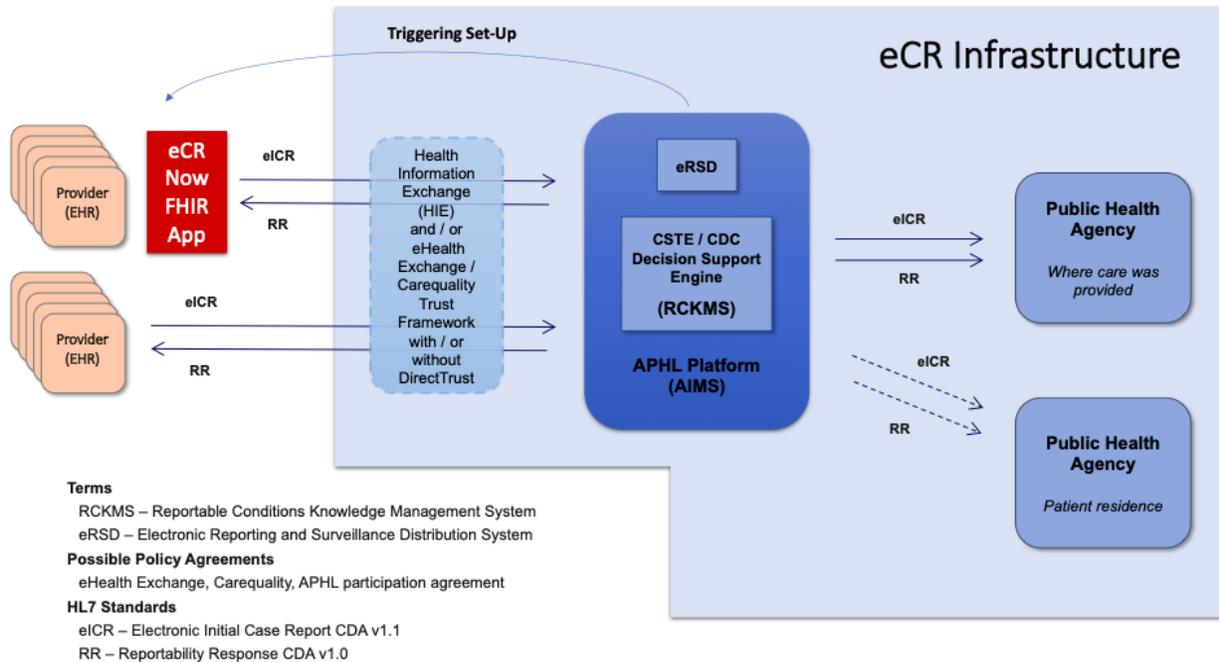
APHL Informatics Messaging Services (AIMS) is a Health Insurance Portability and Accountability Act (HIPAA) and Federal Information Security Management Act (FISMA) compliant, secure, cloud-based platform that accelerates the implementation of health messaging by providing shared services to aid in visualization, interoperability, security, and hosting of electronic data, for the public health community. The AIMS platform securely transports millions of messages monthly, and provides the ability to manage data exchange routes and trading partners across a variety of public health related data flows.

In 2019, a new data flow, Electronic Case Reporting (eCR), came online and eCR implementation has accelerated due to expanded case reporting requirements for COVID-19. eCR involves the automated generation and transmission of case reports from Electronic Health Records (EHRs) from clinical care systems to public health agencies (PHAs) for review and action. The AIMS platform hosts key components supporting the eCR flow between clinical care providers and PHAs.

An eCR implementation at the provider level begins with loading trigger codes that, when entered into a medical record system, will trigger the generation of an Initial Electronic Case Report (eICR). The eICR is transported to the AIMS platform via common healthcare data exchange modalities followed by message validation, determination of reportability and generation of a Reportability Response (RR). Reportability is determined through evaluation of the message in the Reportable Condition Knowledge Management System (RCKMS). RCKMS outputs a payload that is used to generate the RR. A reportability response is always sent back to the provider, and the eICR and RR are sent on to the PHA if one or more conditions are found to be reportable based on the content of the eICR. RCKMS contains common reporting criteria for specific conditions, but PHA's may also adjust reporting rules via an authoring user interface. A

reportable eICR and RR pair may route to multiple PHA’s based on reportability determination for the PHA jurisdiction for both patient home and provider facility address. Figure 1 (below) depicts the high level eCR flow.

Figure 1. eCR Flow



eCR utilizes an asynchronous store and forward architecture with persistence queues at the interfaces to major components of the architecture. This architecture allows for messages to be queued at various points along the flow if a component is down unexpectedly or for routine maintenance. Many components, but not all, are hosted as multiple load balanced instances to support high availability.

As eCR implementation has accelerated, the number of trading partners and message volume has increased significantly over a short period of time and the eCR/AIMS team has implemented incremental enhancements to the architecture to keep pace with this increase in scale and complexity. In consideration of the eventual projected scaling needs and the reliance on eCR as a core capacity supporting public health surveillance, it is important to have a platform and associated operational capacities that can support eCR well into the future. With current operational and technical resources heavily engaged in activities supporting a range of projects and support activities, many related to pandemic response, the primary aim of this RFP is to work with APHL and its existing contractors to generate recommendations on processes, technical architecture and resource utilization, and develop a roadmap for implementation.

Funding Information

APHL anticipates award a maximum compensation amount of \$300,000 for the first six months of this contract.

Goals and Objectives

The purpose of this RFP is to solicit proposals to engage with the eCR leadership/APHL team on an assessment of the AIMS eCR platform with the following goals and objectives:

- Work with the existing team to provide support for an objective review of the current state of eCR on the AIMS platform.
- Document the current state including implementation and operations management approaches, core processes and technical architecture
- Identify gaps and potential enhancements in AIMS eCR Scalability, Reliability and Resilience
- Propose recommendations including –
 - Discrete and scaled activities with well-defined scope
 - Overall roadmap for potential implementation

Scope of Work

Evaluation of AIMS eCR

The specific scope of work includes, but is not limited to, a thorough current state assessment of AIMS eCR platform, infrastructure and associated processes, documentation, technical infrastructure, and resource utilization. The assessment and associated activities should be performed in a minimally burdensome manner to limit the time required from existing AIMS resources.

Areas for focused evaluation, documentation and recommendations include, but may not be limited, to:

- Process and Communications
 - Monitoring (environmental and message flow)
 - Tools and coverage to fit the business need
 - Automation and notifications
 - Processes for escalation, evaluation and remediation of issues
 - Documentation (SOPs, architecture, software code, configuration and environmental)
 - Processes for communication to stakeholders
 - Issues or interruptions in service
 - Scheduled maintenance or changes
- Technical Architecture
 - Documentation of current state of components and interfaces across the operational environment to include:
 - Integration architecture including Mirth and related message queuing and transport components
 - RCKMS
 - Inbound and outbound message transport components including:
 - Provider to AIMS
 - Direct Messaging
 - Cross-Enterprise Document Reliable Interchange (XDR) – including eHealth Exchange and point to point architectures
 - AIMS to Public Health Agencies
 - PHNMS
 - sFTP
 - Amazon S3
 - Scalability requirements and capabilities based on projected growth
 - High availability and message flow resilience capabilities and requirements

- Resource Utilization
 - Monitoring and operations resources
 - Management and workload of shared resources across many activities and programs
 - Cross-training, staff onboarding and distribution of skill sets

Recommendation of Strategies for Improvement and Technical Solutions

Following the documentation of the current state, recommendations and strategies for improvement in each of the above evaluation areas should be developed as work deliverables. There should be multiple recommendations and corresponding implementation roadmaps proposed for each area that are

- a. Discrete – enabling eCR leadership/APHL select from after potential options after technical review
- b. Scaled – enabling eCR leadership/APHL to select appropriate technical activities from different levels in any particular area

Deliverables for each evaluation area will include:

1. Best practice recommendations with multiple options and corresponding roadmaps
2. Proposed refinements and potential solutions (technical, process, documents, SOPs, resource utilization and other)
3. Implementation roadmaps to
 - Support enhancement of AIMS eCR’s scalability, reliability, resilience and overall performance improvement to meet current and future business needs
 - Support existing contributors in advancing to the desired state

Optional Additional Task: Technical Assistance to Support Potential Technical Implementation of Recommended Solutions

The services and tasks described in this section will support implementation activities related to recommendations for refinement and improvement. The eCR leadership/APHL team will select from and may provide scoping guidance on the list of recommended activities. Staffing resources would be provided to support acceleration of implementation while allowing current AIMS resources to continue day to day work. Award of the optional task will depend on vendor’s performance on the primary task, APHL’s review and approval. APHL reserves the right to not exercise the optional task with the awardee for this RFP and may issue a separate RFP for this task. Award for this optional task will also depend on availability of funds at that time.

The technical assistance areas include but not limited to:

- Develop requirements and implementation roadmaps to support implementation of technical solutions
- Support implementation of technical solutions
- Support development of processes, flow charts, SOPs and associated technical documentation
- Support development of support team structure, associated roles and responsibilities

Proposal Structure and Content

Proposals should contain the following sections:

- Submitter profile
 - Company profile
 - Past performances and experiences

- Relevant experience in evaluation or implementation for key areas below
 - Infrastructure and hosting, specifically cloud hosting with AWS
 - Highly available and scalable asynchronous messaging architectures
 - Integration broker technologies, specifically Mirth/NextGen Connect
 - Process management and process improvement
 - Health information exchange standards and technology
- Technical approach
- Management Plan
 - Project Plan, Operations Plan, Risk Management Plan, Resource Management Plan, Transition Plan
- Staffing Plan
- Cost proposal

Evaluation of Responses

Initial Review

eCR leadership and APHL will conduct an initial review of all proposals for completeness. Any application that is incomplete on the RFP response due date (see the [Anticipated RFP Schedule](#) section above) will not be considered and will not receive a formal evaluation.

Evaluation Team

After the initial review, an evaluation team will be assembled to evaluate competitive proposals and then assess their relative qualities based on the [Evaluation Criteria](#) outlined below and any other factors and sub-factors noted in this RFP

Evaluation Criteria

The evaluation team will evaluate proposals based on the evaluation criteria listed in the table below.

Evaluation Criteria
Company Information <ul style="list-style-type: none"> • Company profile • Financial viability • Organizational structure – staff and contractor organizational chart that identifies the major operational components of the organization, and the lines of authority and responsibility • Licensures or accreditations of the organization or other indicators of quality review that attest to the quality of the organization • Services
Past performances and experience <ul style="list-style-type: none"> • Experience with conducting similar activities and technical evaluations including data on the company’s performance on similar contracts, grants and collaborative activities • At least 3 references regarding similar projects and past performance
Technical Approach <ul style="list-style-type: none"> • Responsiveness to RFP Specifications • Approach to respond to program goals and how the responder will report its performance and quality

<ul style="list-style-type: none"> • Describe how the bidder will work with the APHL eCR management team program manager to ensure successful evaluation outcomes. • Approach to address functional requirements, system requirements: security requirements • Approach to training, documentation
Management Plan <ul style="list-style-type: none"> • Proposed management and operations plan • Project plan • Risk management plan • Staff and resource management plan • Transition/start-up plan • Deliverable management plan • Plan to ensure project completion within the timeline
Staffing plan and resources <ul style="list-style-type: none"> • Personnel/Staffing <ul style="list-style-type: none"> ○ Names ○ Titles ○ Resumes ○ Relevant skill sets
Cost Proposal (provide itemized cost proposal broken out by project phase) <ul style="list-style-type: none"> • Total direct costs <ul style="list-style-type: none"> ○ Personnel (hours for each category of staff assigned to project and hourly costs and name, title, wages) • Indirect costs • Travel cost

Post-Evaluation Procedures

APHL staff will notify the selected applicant within ten (10) business days of the completion of the evaluation, and will post the name of the awardee to APHL’s procurement website, www.aphl.org/rfp on the same day. Unsuccessful applicants will receive notification of these results by email within 30 days of the date the name of the winning applicant is posted.

All applicants will be entitled to utilize APHL’s RFP Appeals Process to formulate a protest regarding alleged irregularities or improprieties during the procurement process. Specific details of this policy are located on the procurement website.

Conditions of Award Acceptance

The eligible applicant must be able to contract directly with APHL or have an existing relationship with a third party organization that can contract directly with APHL on behalf of the applicant.

Conflict of Interest

APHL will ask potential reviewers to complete and sign APHL’s Conflict of Interest Disclosure Statement in order to disclose any real or perceived conflict of interest prior to the start of the evaluation process. Reviewers will have to affirm that they have no conflict of interest that would preclude an unbiased and objective review of the proposals received. APHL will not select reviewers with a perceived or potential

conflict of interest. This Conflict-of-Interest Disclosure Statement is provided in the RFP for Applicant review only. **Applicants should not complete the Conflict of Interest Disclosure Statement unless instructed by APHL.**

Disclaimer and Other General Matters

This RFP is neither an agreement nor an offer to enter into an agreement with any respondent. Once the application evaluation is complete, APHL may choose to enter into a definitive contract with the selected RFP applicant(s).

APHL must ensure that the selected applicant is neither suspended nor debarred from receiving federal funds and that the applicant meets any other funding eligibility requirement imposed by the Cooperative Agreement. APHL's determination of whether the applicant is eligible to receive Cooperative Agreement funding will be definitive and may not be appealed. In the event that APHL determines that the selected applicant is ineligible to receive Cooperative Agreement funding, APHL will nullify the contract or will cease negotiation of contract terms.

Each applicant will bear its own costs associated with or relating to the preparation and submission of its application. These costs and expenses will remain with the applicant, and APHL will not be liable for these or for any other costs or other expenses incurred by the applicant in preparation or submission of its application, regardless of the conduct or outcome of the response period or the selection process.