

THSA



TEXAS HEALTH SERVICES AUTHORITY

Request for Proposals (RFP)

for

FHIR® -Based Application Software Development Services

Date of Release: 11-March-2021

Status: Final

1. Background

1.1. Scope

The Texas Health Services Authority (THSA) is seeking software development services to help the THSA develop an HL7[®] Fast Healthcare Information Resources (FHIR[®]) based-application using the [HL7[®] FHIR[®] Situational Awareness for Novel Epidemic Response \(SANER\) Implementation Guide](#) (the FHIR[®] SANER IG). This application (the SANER App) will support computation of situational awareness measures using the FHIR[®] SANER IG. It will also develop or enhance and deploy a FHIR[®] Server (the SANER SERVER) supporting FHIR[®] R4 Resources for measure reporting and data collection.

Relevant attachments to this RFP include:

Exhibit A – Warranties. This exhibit provides a list of attestation requirements for the Vendor(s) selected to perform the services as described in this RFP.

Exhibit B – Proposal Format. This exhibit provides details on the format in which a proposal response should include.

Exhibit C – Form of Response. This exhibit provides details on what information a response to the RFP should include.

Exhibit D – Background and Additional Requirements. This exhibit provides a brief background.

Exhibit E – DSHS Data Element Dictionary. This exhibit provides the DSHS Data Element dictionary to inform participants of the type of data collected today.

1.2. Background on the Texas Health Services Authority

The THSA is established in Texas Health and Safety Code Chapter 182 as a public-private partnership to promote, implement and operate facilitate statewide health information exchange. The THSA has a 12-member Board of Directors appointed by the Governor with advice and consent of the Texas Senate. The THSA's CEO and staff oversee the THSA's daily operations.

The THSA does not discriminate on the basis of race, color, national origin, gender, religion, age, or disability in employment or the provision of services.

1.3. What Services are Being Procured?

“The Texas Health Services Authority (THSA), Healthcare Access San Antonio (HASA) a regional health information exchange (HIE) covering multiple regions in Texas, a local hospital partner, and Audacious Inquiry (Ai) , a Maryland-based company will leverage their collective expertise to demonstrate how HIE services can better support public health entities and other government organizations responsible for disaster response and health care providers as they execute state and federal reporting requirements for disaster response. Specifically, the partnership will conduct a proof-of-concept pilot to demonstrate real-time, automated exchange of hospital capacity and other situational awareness data through application programming interfaces (APIs) using HL7[®] Fast

Healthcare Interoperability Resources (FHIR®).”¹. The pilot will include reporting of Situational Awareness measures using real world data, and these reports will compare results to existing results being reported to Texas Department of State Health Services (DSHS) through other means. In-hospital reporting can be performed through near real-time interfaces or scheduled retrieval and data will be reported through an automated scheduled interface that also supports reporting on an as needed basis.

An immediate aim of this initiative is to reduce reporting burden and human error inherent in current hospital capacity reporting processes by improving and increasing the technical connectivity between health care organizations and public health agencies. Like much of the rest of the country, Texas has been challenged by state and federal requests for hospital capacity data during the COVID-19 response. Since early in the event, DSHS has been collecting and using the information for disaster response in Texas, as well as reporting required information to the federal government on behalf of hospitals in the state. An example of the data collected is provided in Exhibit E. This data is collected daily from across eight regional health care coalitions. This hospital capacity data is routinely collected from hospitals hospital capacity data using one of two systems, EMResource and WebEOC. Please note, the goal of this pilot is not to replace these existing collection systems, but rather to demonstrate the capability to better automate the collection process using standards.

Because the current reporting system is largely manual, it requires an individual from each participating hospital or health care organization to populate these databases once a day. While this process has been working adequately, the system does not provide immediate, real-time access to hospital capacity data and is time-consuming for the hospitals and public health authorities involved. To demonstrate the effectiveness of automated reporting, the partnership will use the balloted draft of the FHIR® SANER IG developed under the SANER Project to extract data elements from underlying hospital information systems and enable public health authorities and response agencies in Texas to view these data in real-time via a dashboard and reports.

Automated electronic reporting may have widespread benefits for health care situational awareness in future disasters. Given that Texas has experienced 12 major disaster declarations in the last five years alone, this development has potential to be widely impactful for the state. Please note: The demonstration will not be used as a substitute for current response activities. Rather, it will serve as a demonstration of potential extraction services.

The following services are being procured:

- The development of freely available open-source software to implement specified actors of the FHIR® SANER IG including:
 - Selection and acquisition of open-source framework components for developing the SANER App and a SANER Server to receive response data. Software coding should be Java, JavaScript, or a

¹ THSA original grant proposal, September 1, 2020.

- combination thereof and support deployment in OpenJDK 11 or later.
- Software development services to develop the SANER App and SANER Server as further described in Exhibit D.
 - Implementation and integration of the SANER App for use with the THSA-selected EHR (e.g., Cerner, Epic) or other health IT systems used in a hospital environment. Responders to this RFP should assume that there will be two pilot facilities with each having different EHR systems, and potentially overlapping 90-day pilot periods where the software is being piloted.
 - Interactive virtual testing of the SANER App must be conducted at an HL7® or IHE® Connectathon event with EHR and other health IT solutions prior to, or within four months of pilot implementation.
 - Software support through application testing and pilot stages for a 90-day pilot for each facility.
 - The pilot anticipates that measure reports will be produced daily but will want to test the capability of the system to report more frequently (e.g., hourly) to address other types of emergencies.
 - Software (server) hosting services will be provided and managed by the THSA and/or HASA for the pilot.
 - Responders are also asked to provide a quote for one year of software support for a single facility that would be honored for the period of no more than two years.

2. General Procurement Information

2.1. The THSA Point of Contact

The sole point of contact for inquiries concerning this RFP is:

George Gooch, CEO
Texas Health Services Authority
901 S. Mopac Expressway
Building 1, Suite 300
Austin, Texas 78746
Telephone: (512) 329-2730
procurement@thsa.org

All communications relating to this RFP must be directed to the THSA contact person named above. **Failure to comply with these requirements may result in disqualification.** An exception to this restriction will be made for Vendors who, in the normal course of work may need to discuss legitimate business matters concerning their work that is unrelated to this RFP.

2.2. Procurement Schedule

The following table documents the anticipated critical pre-award events for the procurement. All dates are subject to change at the THSA's discretion.

Procurement Schedule*	
RFP Release Date	11-Mar-21
Notice of Intent to Respond Due	22-Mar-21
Deadline for Submission of Questions	22-Mar-21
THSA Posts Responses to Vendor Questions	26-Mar-21
Proposals Due	2-Apr-21
Tentative Award Announcement*	19-Apr-21
Anticipated Contract Start Date*	26-Apr-21
End Date*	31-Dec-21

*Subject to change.

2.3. Instructions for Providing the THSA with Notice of Intent to Respond to RFP

The THSA requests that eligible Vendors notify the THSA point of contact noted in Section 2.1 of the RFP of their intent to respond to the RFP by E-mail **by 5:00 PM Central Time [22-MAR-21]**. Failure to provide such notice **DOES NOT** disqualify an organization from later deciding to submit a proposal in time for the deadline for proposal responses pursuant to Section 2.2, Procurement Schedule.

The subject line of each E-mail shall state:

- "Notice of Intent to Respond – FHIR®-based App Development Services RFP: [Vendor Name].

The body of the e-mail must include:

- Name of organization
- Name, address, telephone number, and e-mail address of individual(s) authorized to submit a response

2.4. Deadline and Instructions for Submission of Questions and Responses

Questions regarding this RFP are due by **5:00 PM Central Time on [22-Mar-21]**. A list of questions must be submitted to the THSA point of contact via email by 5:00 PM on that date in order to be accepted for inclusion in the Vendor Q&A that will be posted on the THSA's website, www.THSA.org.

Responses to this RFP are due by **5:00 PM Central Time** on the date identified in Section 2.2, Procurement Schedule. A complete proposal must be submitted to the THSA point of contact noted in Section 2.1 of the RFP in the format described in Exhibit C – Proposal Format.

The subject line of e-mails related to this RFP shall state: FHIR®-based App Development Services RFP: [Vendor Name].

2.5. Validation of Proposal Offerings

The proposal shall be a binding commitment which the THSA may include, at its sole discretion, by reference or otherwise, into any agreement with the Vendor. Therefore, each proposal copy must be validated by the signature of a person having authority to commit the Vendor.

2.6. THSA Amendments and Announcements Regarding this RFP

The THSA will post all official communication regarding this RFP on its website, www.THSA.org. The THSA reserves the right to revise the RFP at any time. Any changes, amendments, or clarifications will be made in the form of written responses to Vendor questions, amendments, or addenda issued by the THSA via the website.

2.7. THSA Rights Reserved

The THSA, at its sole discretion in determining that its best interests would be served, reserves the right to amend or cancel this RFP at any time prior to the contract award, reject any late or incomplete proposals, and to require organizations at their own expense to provide written clarification on proposals and/or make oral presentations to the THSA a time, place, and manner as selected by the THSA in order assist the THSA in its determination of award.

2.8. Costs Incurred

Issuance of this RFP in no way constitutes a commitment by the THSA to award a contract or to pay any costs incurred by a Vendor in the preparation of a response to this RFP. The THSA is not liable for any costs incurred by a Vendor prior to issuance of or entering into a formal agreement, contract, or purchase order.

2.9. News Releases: Prohibitions and Pre-Approvals Required

Prior to contract award, a Vendor may not issue a press release or provide any information for public consumption regarding its participation in the procurement. Upon award of the contract, subsequent press releases or public communications must be approved by the THSA.

This Section does not preclude business communications necessary for a Vendor to develop a proposal or required reporting to shareholders or governmental authorities.

2.10. Copyright and Intellectual Property

The THSA will not consider any response that bears a copyright. **Responses may be subject to the Texas Public Information Act**, Texas Government Code, Chapter 552, and may be disclosed to the public upon request. Subject to the Act, prospective Vendors may attempt to protect what they consider to be trade secret and confidential information from public release. Trade secrets or other confidential information, submitted as part of a response, must be clearly marked on each page on which such information appears.

Such marking must be in boldface type and at least 14-point font. Vendors should review carefully Chapter 552, Texas Government Code, and in particular Section C, Information Excepted From Required Disclosure, for more information on exceptions to public disclosure of information under the Texas Public Information Act. Please note that the ultimate decision as to whether materials qualify for an exception under Chapter 552 rests with the Texas Attorney General's office.

The THSA requires that Vendors provide a separate version of their RFP response that redacts all information the Vendor believes is "Information Excepted from Required Disclosure" as noted above. THSA may use this redacted version of Vendor's RFP response to see if it satisfies any requests for information made pursuant to the Texas Public Information Act related to this procurement. Please note that if this redacted version of the Vendor's RFP response does not satisfy a particular request for information under the Texas Public Information Act, THSA will continue processing the request for information pursuant to the Act.

The THSA reserves the right to use any and all ideas presented in a response unless the prospective Vendor presents a valid legal case that such ideas are trade secret or confidential information and identifies the information as such in the manner described in the preceding paragraph. A Vendor may not object to the use of ideas that: (1) are not the Vendor's legally protectable intellectual property; (2) are not designated as such in the RFP response; (3) were known to the THSA before the submission of the response; (4) were in the public domain at the time of the response, or thereafter enter in the public domain through no fault of the THSA; or (5) became properly known to the THSA after response submission through other sources or through acceptance of the response. The THSA may reject a proposal where the entire proposal is marked confidential or trade secret.

2.11. Proposal as Property of THSA

Except as otherwise explicitly provided in this RFP or the resulting contract, all work product produced by a Vendor, including without limitation the proposal, all plans, designs, software, and other contract deliverables, become the sole property of the THSA.

The THSA reserves all intellectual property rights including, without limitation, copyrights, trademarks, trade secrets, patents and patentable work produced by or for the THSA. Work provided by the Selected Vendor(s) pursuant to this RFP is work made for hire, and Selected Vendor(s) by contract will be required to affirm that the work is work made for hire and to grant to the THSA all rights and titles to ownership of such work.

2.12. Additional Information

By submitting a proposal, the Vendor grants the THSA the right to obtain information from any lawful source regarding the Vendor's and its directors, officers, and employees: (1) past business history, practices, and conduct; (2) ability to supply the goods and services; and (3) ability to comply with contract requirements. By submitting a proposal, a Vendor generally releases from liability and waives all claims against any party providing the

THSA information about the Vendor. THSA may take such information into consideration in evaluating proposals.

2.13. Multiple Responses

A Vendor may submit only one proposal as a prime contractor. This requirement does not limit a subcontractor's ability to collaborate with one or more Vendors submitting proposals.

2.14. No Joint Proposals

The THSA will not consider joint or collaborative proposals that require it to contract with more than one Vendor.

2.15. Use of Subcontractors

No subcontract under the contract shall relieve the Vendor of the responsibility for ensuring the requested services are provided in the manner identified in the contract. Vendors planning to subcontract all or a portion of the work to be performed shall identify the proposed subcontractors in the proposal and must immediately notify THSA of any changes to proposed subcontractors for the THSA's pre-approval of such change.

2.16. Protest Procedures

Vendor agrees to work with the THSA in good faith to resolve any issues arising from this procurement process by escalating any issues to its senior management who will be responsible for working directly with the THSA's senior management to resolve any issues. The parties will work diligently for a period of at least thirty (30) calendar days prior to proceeding to arbitration.

3. Evaluation of Proposals

3.1. Evaluation Criteria

Any award to be made will be based on the best overall proposal with appropriate consideration given to all requirements and established client satisfaction. Evaluation will be based upon the total services offered and the total price quoted for all items.

Without limitation to the foregoing, the THSA may consider the qualifications and experience of subcontractors, Vendors, and other persons and organizations proposed to perform the services. The THSA may conduct such investigations as the THSA deems appropriate to assist in the evaluation of any proposal and to establish the responsibility, qualifications and financial ability of Vendors, proposed subcontractors and other persons and organizations to perform and furnish the services in accordance with the RFP to the THSA's satisfaction.

The THSA does not represent that these are the sole evaluation criteria and reserves the right to adjust the criteria at its discretion.

Proposals will be evaluated based on the following criteria and weights:

- Compliance with the requirements listed in this RFP – Weight 30%

- Proposed project plan and timeline – Weight 20%
- Cost – Weight 20%
- Prior Vendor experience delivering similar solutions – Weight 30%

3.2. Requirements for Successful Vendor

Successful Vendor shall enter into a contract in a form acceptable to the THSA. The THSA reserves the right to engage in contract negotiations with more than one Vendor for the same work in order to attempt to help safeguard the THSA and its stakeholders in the event that the Vendor and the THSA are unable to negotiate a contract on mutually acceptable terms. The THSA reserves the right and discretion to fund one or more components or define parts of a Vendor's proposal. In the event of such a determination, the Vendor will be required to submit a revised budget reflecting the funding decision and such other information as the THSA may require.

3.3. Funding Decisions

Upon completion of its evaluation of RFP proposals, the THSA will enter into appropriate agreements with successful Vendor in accordance with the preceding section. All awards are subject to all state and federal laws, rules, and regulations that govern contracts managed by the THSA.

3.4. Key Personnel

The Vendor must certify that all personnel named in its proposal shall actually work on the contract in the manner described in its proposal. In addition, these individuals shall continue to perform services for the duration of the Contract, except in the event of resignation, death, or mutual agreement by the parties. No changes, substitution, additions or deletions shall be made unless approved in advance by the THSA. In such event, any substitute personnel shall be approved in writing by the THSA.

3.5. Audit and Records

The Selected Vendor shall have its financial records and other pertinent materials available for review and audit by the THSA, the State Auditor, and/or other auditors for a period of three (3) years following the end of the contract period.

3.6. Conformance with State Laws

Nothing in the RFP, Vendor's proposal, or these contract conditions shall be construed to violate any provision of the laws and/or regulations of the State of Texas, and all acts done shall be done in such manner as may conform to those laws. If any word, phrase, clause, paragraph, sentence, part, portion, or provision of the agreement or the application of those provisions to any person or circumstance is held to be invalid, the remainder shall nevertheless be valid and offending terms shall be deemed to be so modified such as to be compliant with federal and state laws and/or regulations.

4. Regulatory and Legal Constraints

4.1. Conflicts of Interest

A conflict of interest is a set of facts or circumstances in which either a Vendor or anyone acting on its behalf in connection with this procurement has past, present or currently planned personal, professional or financial interests or obligations that, in the THSA's determination, would actually or apparently conflict or interfere with the Vendor's contractual obligations to the THSA. Neither the Vendor nor any other person or entity acting on its behalf, including but not limited to subcontractors, employees, agents and representatives, may have a conflict of interest with respect to this procurement.

4.2. Former Employees of a State Agency

The THSA is a quasi-governmental state entity. Vendors must comply with Texas and federal laws and regulations relating to the hiring of former state employees (see e.g., Texas Government Code §572.054 and 572.069 as well as 45 C.F.R. §74.43). Such "revolving door" provisions generally restrict former agency heads from communicating with or appearing before the agency on certain matters for two years after leaving the agency. The revolving door provisions also restrict some former employees from representing clients on matters that the employee participated in during state service or matters that were in the employees' official responsibility for two years after leaving the agency.

4.3. Civil Rights Language

Vendor agrees to comply with state and federal anti-discrimination laws, including without limitation:

- (1) Title VI of the Civil Rights Act of 1964 (42 U.S.C. §2000d *et seq.*);
- (2) Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. §794);
- (3) Americans with Disabilities Act of 1990 (42 U.S.C. §12101 *et seq.*);
- (4) Age Discrimination Act of 1975 (42 U.S.C. §§6101-6107);
- (5) Title IX of the Education Amendments of 1972 (20 U.S.C. §§1681-1688); and
- (6) Food Stamp Act of 1977 (7 U.S.C. §200 *et seq.*).

Exhibit A – Warranties

Vendor agrees that the following warranties are an essential part of this agreement, and that without these warranties the terms of the RFP and resulting contract(s) would be substantially different.

Vendor warrants and agrees at all times during the procurement period, and thereafter pursuant to any resulting contract, to the following:

1. No appointed official or member of the THSA has or will benefit financially or materially from this procurement based on any action of Vendor;
2. Vendor has not contracted to provide similar services to a similarly situated customer on better terms and conditions, including price, than it is offering to the THSA, and shall not do so during the contract term;
3. Independent Price Determination:
 - 3.1. The costs proposed have been arrived at independently, without consultation, communication, or agreement for the purpose of restricting competition as to any matter relating to such process with any other organization or with any competitor;
 - 3.2. Unless otherwise required by law, the costs quoted have not been knowingly disclosed by the Vendor on a prior basis directly or indirectly to any other organization or to any competitor;
 - 3.3. No attempt has been made or will be made by the Vendor to induce any other person or firm to submit or not to submit a proposal for the purpose of restricting competition; and
 - 3.4. The Vendor did not directly participate in the RFP development process (other than during the public comment period), had no knowledge of the specific contents of the RFP in its final form prior to its issuance other than to the extent it was made publicly available by the THSA in draft format, and no member of the THSA participated directly or indirectly in the Vendor's proposal preparation other than via the THSA public process.

Exhibit B – Proposal Instructions

General Formatting Requirements

All RFP responses must be delivered in electronic format. No paper copies of the RFP will be accepted for evaluation. Files should be delivered via electronic mail to procurement@thsa.org.

Formatting the Proposal's Content

The THSA is providing the following formatting expectations to ensure uniformity of presentation. The body of the narrative material should be presented using the following formatting guidelines:

1. Text shall be formatted for 8 ½" x 11" paper in the "portrait" orientation, except where a supplied template is in "landscape" orientation;
2. Text shall be single spaced;
3. The THSA prefers a Sans Serif font, such as Arial, for the body of the document with a font pitch no smaller than 11 points;
4. The margin at the binding edge of any document shall be a minimum of one and one half inches (1 ½"), all other margins shall be one inch (1");
5. Inline graphics or illustrations shall be clean and crisp in appearance and must be captioned appropriately;
6. Any graphics or illustration may have a smaller text spacing, pitch and font size but must be legible;
7. Oversize attachments or appendices should not exceed 11" x 17";
8. Resumes must be in a consistent format; but they do not need to conform to the formatting guidelines for the proposal itself; and
9. Page limits are indicated in **Exhibit C** of this RFP and should be observed.

The THSA staff will reply to the submission via e-mail confirming receipt of the proposal. If Vendor has not received a confirmation of receipt from the THSA staff within three business days of submission, Vendor must contact the THSA point of contact as noted in Section 2.1 of the RFP with proof of transmission.

Exhibit C – Proposal Contents

The proposal contents **must** be organized in the following order. Page limits for each section, if any, are indicated with square brackets after each section name. These limits should be considered a maximum amount for each category, not a target. The THSA appreciates brief, on-point responses.

Transmittal Letter – [1-page limit] - Please include the name, title, mailing address, telephone number and extension, fax number as well as a valid email address for the person that the THSA is to contact to resolve questions or issues regarding the submitted proposal. An officer authorized to bind the Vendor to the terms of the proposal must sign the transmittal letter.

Company Overview – [4-page limit, 10 points Vendor Experience] – Please include the following information:

1. Formal Company Name
2. Company Trade Name (If Different)
3. Physical Address
4. Mailing Address
5. Corporate TIN
6. Company Representative Contact Information
 - a. RFP Response Contact Person
 - b. Title
 - c. Daytime Telephone & Extension
 - d. Electronic Mail Address
 - e. Company Web Site
7. Publicly or Privately Held
8. Stock Symbol (Public Companies)
9. Corporate Status (C Corporation, 501(C) 3, LLC, etc.)
10. Copy of annual statement
11. Date of Incorporation
12. State of Incorporation
13. Number of Business Locations
14. Number of Employees
15. Number of Active Government Clients or Customers
16. Number of Active Nonprofit Corporation Clients or Customers
17. Years of Experience with projects of similar scope and complexity
18. References (Name, Title, Mailing Address, Work Phone, Email Address, Length of time working with the customer)
19. All potential conflicts of interest and the measures the Vendor proposes to take to ensure that there will be no actual conflict of interest and that its fairness, independence and objectivity will be maintained

Project Narrative – [10-page limit, 30 points Compliance with Appendix C] – Please provide a narrative that demonstrates the organization’s understanding of the services requested by this RFP. The Executive Summary should briefly describe the proposed

approach, including its key features and strengths. More detailed narrative should describe the proposed architecture and security model for the delivered system and describe key components to be delivered.

Staffing Models – [2-page limit, 5 points Project Plan and Timeline] – Please provide an overview of the staffing approach to the project, including a description of the training and experience levels of the personnel that will be assigned to this project. Staff resumes are excluded from this two-page limit.

Experience – [3-page limit, 10 points Vendor Experience] – Please provide an overview of the firm’s relevant experience including but not limited to the following:

1. Detail the firm’s experience in providing the services being procured under this RFP.
2. Provide information on whether the firm provides services to any related industry organizations.
3. Describe the firm’s software development approach and processes, including approach to application security.
4. Describe the firm’s independence with respect to the THSA
5. Identify the partner, manager, and other key personnel who will be assigned to the THSA contract if awarded, and provide biographies. Indicate any complaints against them that have been leveled by any state board or other regulatory authority. Indicate the outcome of these complaints and the corrective action(s) taken by your firm with respect to these complaints.
6. Set forth the proposed fee for the deliverables.
7. Provide the names and, contact information and time periods of engagement for similarly sized clients of the partner and manager that will be assigned to the THSA for reference purposes.
8. Describe relevant industry engagements of similar scope and complexity, and a brief description or summary of accomplishments and lessons learned from those engagements.
9. Describe relevant industry or personnel certifications applicable to the RFP (e.g., HITRUST, HL7[®] FHIR[®] Certification, others).
10. Explain what makes the firm different than others that may respond to the proposal.

Work Plan and Timeline [4-page limit, 15 points Project Plan and Timeline]

1. Describe how the firm will approach the services being procured under this RFP.

2. Describe the proposed timeline for the work under the proposed agreement.

Cost [2-page limit, 20 points Cost] – The main purpose of this section is to detail the pricing for the proposed services. Please provide hourly rates as a point of reference for evaluating the pricing submitted for the RFP, including estimated hours for each aspect of the work. If a different pricing model is used, please detail it. Include any assumptions made about the work in developing the estimates. Assume that the THSA will include a not-to-exceed amount in any contract awarded based at least in part on these figures.

Staff Resumes [no page limit, 10 points Vendor Experience] – Include resumes of partner, manager, and other key personnel who will be working on this project.

Exhibit D – Background and Additional Requirements

This RFP is in support of the ONC STAR HIE cooperative agreement received by THSA to improve health information exchange services. The THSA, in partnership with HASA, a local hospital partner, and Ai, will conduct a proof-of-concept implementation to demonstrate a near real-time automated exchange of hospital capacity and other situational-awareness data through APIs using HL7[®]'s FHIR[®] specification. This modified reporting will support the Texas DSHS. The successful Vendor will be collaborating with other subcontractors of the THSA, hospital partners and their EHR and health IT vendors while providing services under this grant.

1. As described in section 2.11, this procurement is for software development services under hire.
 - a. The Vendor will deliver all documented source code in both human-readable and compiled formats, as applicable, software design and architecture, configuration, and operational documentation and deployment instructions to the THSA. These Vendor developed materials will become the property of the THSA under the awarded contract but will remain open source for at least the duration of the ONC cooperative agreement with the THSA.
 - b. The Vendor will provide technical support to address reported bugs, configuration problems or other issues preventing operation of the supplied software for the developed software at up to two pilot sites during normal business hours during the deployment testing period, and the 90-day pilot periods, and assist the THSA, HASA and Ai technical staff in deployment of the software if necessary.
 - c. The Vendor will test the software at an IHE[®], HL7[®] or other THSA-designated Connectathon event to test the ability of the software for compatibility with software (e.g., EHRs) from other EHR or health IT vendors.
 - d. The Vendor must enumerate all necessary software libraries and associated licenses required to continue to use the open-source software in a production environment for each site, along with any current, associated annual costs to license those components which are not available at no cost as open-source tools.
 - e. The Vendor will coordinate with the THSA, HASA and Ai staff who will function in the Agile roles of overall Product Manager, Product Owner and Architecture Lead for the software delivered under this project.
 - f. The Vendor is requested to provide cost information for additional software services and support beyond the initial contract period which the vendor will honor up to two years from the completion of the contract.
2. The SANER App developed by the Vendor must conform to the following requirements:
 - a. The SANER App will implement [Epic](#) and [Cerner](#) authentication requirements for service applications to access FHIR[®] R4 resources and will be deployed to the pilot facility or facilities.

- b. The SANER App will interoperate with the hospital using an Epic or Cerner EHR, using FHIR® DSTU2 or R4 as appropriate for one or two hospitals piloting the software.
 - c. The SANER App will implement the [Measure Computer](#), [Measure Source](#), and [Measure Definition Consumer](#) actors as specified in the HL7® FHIR® SANER IG.
 - d. The SANER App will implement the [Push Option](#) for the Measure Source actor as specified in the SANER IG.
 - e. The SANER App will support the production of FHIR® R4 MeasureReport resources using FHIR® R4 Measures defined using FHIRPath.
3. The SANER Server developed by the Vendor must conform to the following requirements:
 - a. The SANER Server will implement the [Data Source](#), [Measure Consumer](#), [Measure Source](#), and [Measure Definition Source](#) actors specified in the FHIR® SANER IG.
 - b. The SANER Server will implement the [Push Option](#) and the [CSV Option](#) for the Measure Consumer, and the [Pull Option](#) for the Measure Source actors.
 - c. The SANER Server will support the production of FHIR® R4 MeasureReport resources using FHIR® R4 Measures defined using FHIR® Path.
 - d. The SANER Server will interoperate with the hospital using an Epic or Cerner EHR or other health IT system, using HL7® FHIR® R4, for the hospitals piloting the software.
4. There will be no travel expected by the Vendor for this activity. All required events will be virtual.
 - a. The successful vendor will participate in at least one virtual HL7® or IHE® Connectathon to test the software with EHRs and other health IT systems, as specified by the THSA. Vendor should include cost of participation in these events in its proposal.
5. A vendor representative will be expected to participate in weekly virtual project status meetings, monthly virtual ONC grantee meetings, twice monthly virtual meetings of the technical advisory group (TAG) in addition to other activities required to complete the contract (~7 hours a month).

Exhibit E – Texas DSHS Data Element Dictionary

This exhibit is included to illustrate the kinds of data that might be reported by pilots.

The content of this exhibit can be found at

<https://www.dshs.state.tx.us/coronavirus/docs/HospitalBedReportingDataDictionary.pdf>

and is incorporated by reference.