THSA
TEXAS HEALTH SERVICES AUTHORITY

FHIR® Based Application Software Development Services RFP

Questions and Answers

March 29, 2021

	Question	Answer
1	Which SANER Capability Statements would the SANER server need to support?	DataSource MeasureConsumer MeasureConsumer-Aggregate MeasureConsumer-CSV-Push MeasureSource MeasureSource-Pull MeasureDefinitionSource"
2	What will be the authentication method for users of the SANER app to SANER Server developed by the Vendor?	The solution has some flexibility in this regard. Contemplated options include PKI-based (2-way-TLS), or OAuth2 client credentials grant type, or similar. Proposers are encouraged to enumerate options supported in their responses.
3	Will vendor or THSA provide the auth server?	The selected vendor should propose and provide a solution. Open-source solutions are required as per the RFP.
4	If the auth server should support SMART on FHIR, please indicate version?	SMART on FHIR is not a strict requirement. Proposers should list available authentication mechanisms their proposed offering can implement.
5	If the RFP contemplates using the hospital's Epic or Cerner as the auth server, how does THSA envision that working? Typically, the FHIR server and its associated auth server must be addressed on the same domain.	As the resource owner, the hospital EMR may impose requirements on the requesting FHIR client. The proposed solution should be familiar with and propose solutions compatible with the EMRs in scope of this project. It is anticipated that OAuth2 client credentials (back-end system-to-system) grant types are appropriate but the proposed solution should clearly indicate support to meet EMR security model requirements.
6	Does said SMART on FHIR auth server, if applicable, need to be open source as well?	Yes, unless leveraging an existing component available within the hospital EMR environments, such as the intrinsic EMR authorization server.

7	Can the SANER server solution be deployed to Amazon cloud?	Ai will host the solution in their environment.
8	Is it expected that hospital pilots will require FHIR interface connectivity to only Cerner and EPIC EHRs or will pilot hospital IT systems include additional (non-EHR) IT systems?	Pilot hospitals may include additional non-EHR IT systems which may integrate with the SANER Server. This integration will be handled by either the pilot hospital or the THSA program team.
9	Will pilot hospital's EHR & other relevant systems be expected to have implemented FHIR IG R4 measure source, measure computer, measure definition source, and data source actors prior to pilot participation?	It depends on the Hospital's EHR system. There are two options: 1. The Hospital's EHR may implement the Measure Source actor. 2. The Hospital's EHR may implement the Data Source actor, in which case the SANER App is expected to provide Measure Computer and Measure Source capability, integrated using the Hospital's EHR acting as a Data Source. 3. The Measure Definition Source will be provided by THSA.
10	Will pilot hospital's EHR & other relevant systems be expected to have implemented FHIR IG R4 push & pull and/or CSV options prior to pilot participation?	No. This RFP anticipates developing the SANER App and SANER Server to support these capabilities.
11	Will the pilot hospitals be expected to support one of the FHIR SERVER Architecture described in the FHIR SANER IG R4 Overview (Section 3.1.5)?	See the third diagram in Section 3.1.5
12	Can you clarify the following requirement? Software support through application testing and pilot stages for a 90-day pilot for each facility. Software (server) hosting services will be provided and managed by the THSA and/or HASA for the pilot. We typically develop in MS Azure environment. Does this requirement pertain only to deployed SW during 90-day pilot test period? Would it apply if pilot has wider adoption/deployment? How does this factor into the desire for HITRUST/NIST certification which would include hosting environment?	Ai will host the solution in their environment.
13	SANER App Development Team - Reference: Exhibit D/Point 2 - Would the SANER App be developed completely by a single vendor OR by a composite team comprising of the selected vendor resources, other subcontractors of the THSA and health IT vendors?	The SANER App development will be directed and overseen by personnel from THSA, HASA, and Audacious Inquiry. The selected vendor will carry out activities as described in the RFP but may, as indicated in sections 2.13 and 2.15, work with other vendors or subcontractors to do so.

14	Actors - We understand that SANER server will implement PUSH (with API) option for Measure Consumer actor (that can be used by Hospital EHR systems to PUSH data using APIs). Would the SANER server be applicable? If certain Hospital (EHR) systems have API enabled endpoints, would the SANER server be required to implement a PULL option for Measure Consumer so as to optimize real-time and automated exchange of situational awareness data? Based on http://build.fhir.org/ig/HL7/fhir-saner/architecture.html (3.1.5), the PULL option is a possibility and hence this question.	The PUSH architecture is preferred for this pilot.
15	Architecture - Multiple options have been described for FHIR server, external storage and deployment in Would it be in the scope of selected vendor to own and create final solution and technical architecture OR would their primary role be that of development with support to THSA's architecture team?	This would be a collaborative effort. We would expect the selected vendor to work closely with the THSA architecture team, but would be guided by their input.
16	Security Considerations - Reference - http://build.fhir.org/ig/HL7/fhir-saner/architecture.html (3.1.6) - Based on the description provided, our understanding is that the FHIR Server and underlying data be hosted on Cloud. Please confirm.	Please see answers to questions #7 and #11.
17	How much of the disaster response related situational awareness data is expected from systems having clinical data versus systems not having clinical data?	Bed, Ventilator and Death related data is expected to come from clinical systems, regardless of whether this data is considered to meet an entity's definition of clinical data, integrating via the SANER App. PPE and staffing data MAY be provided from other sources that would be integrated with the SANER Server by the THSA program team.
18	Does THSA currently have a production FHIR Server being used for other projects? What vendor or what instance of FHIR Server is THSA currently using?	THSA has no production FHIR server at this time.
19	If, THSA has a current FHIR Server – will preference be given to the current FHIR Vendor?	N/A
20	Does THSA intend or envision their production FHIR Server running the FHIR Validator Service in production?	N/A

21	Will the THSA FHIR Server for this project be exclusively limited to the SANER project and information exchange only? Or, does THSA envision supporting future FHIR user cases?	N/A
22	Does THSA envision their FHIR Server to support and maintain, audit logging (such as IHE ATNA), provenance, and related security controls?	Yes
23	Will THSA assume the vendor to implement, support and stand up any required security layer (such as SMART-ON-FHIR) OAuth2 infrastructure, or is this infrastructure already in place?	The security services for the scope of this project will need to be supplied by the vendor, using an existing, or creating new open-source solutions.
24	Would THSA consider an ONC 21st Century Cures Act certificate G10 FHIR Server, with an ONC ACB (ATB) as differentiator?	THSA does not have a specific requirement for criterion, but reserves the right to take this into consideration as a factor weighed against other proposals.
25	Does THSA currently have any preferences for FHIR Testing approaches? Would THSA support implementing FHIR Test Script Resource as the method for Testing the SANER implementations? Where the Test Script is Open-Source and follows the FHIR Standard Open license of CC0	Vendors are encouraged to propose their preferred approaches for validation testing of this solution. Open-source automated test cases are required. Using an open-source test tool or suite is also required.
26	Is it anticipated that the FHIR Server and FHIR Service support THSA SANER implementation will support FHIR Provider and Electronic Directory Service (eHDIR) or CMS PDEX type directory services? Will these paths be hardcoded or dynamic? Integrated directory service security controls, or manual security controls? Or, are these services currently available or planned to be provided by THSA and to be implemented and integrated?	See response #21.
27	During the course of this project, is it envisioned that the THSA SANER solution will be built to support future-proofing? Such as support for FHIR R5, and multiple-FHIR Versions? Or, does THSA intend to support separate implementations and separate end-points as the FHIR standard changes and is updated?	See response #21.
28	What is volume of data expected to be from the two sites for the pilot (records/day, MB/day, # transactions, etc)	The SANER Server would be expected to receive from 3-5 reports per day from hospital IT systems, each on the order of 10Kb, and transmit one daily report. Some tests may

		increase the daily load to report as frequently as hourly.
30	Is there any data cleansing and/or transformation/mapping expected for the two pilot sites?	Some site-specific mapping may be required to support standard terminologies (e.g., bed types).
31	What are the qualification criteria required to be an eligible vendor with THSA?	Any and all qualifications are based on guidance contained in the RFP. THSA does not maintain separate qualification criteria.
32	How many hospitals are planned to be integrated for widespread release post pilot?	Post-pilot sustainability planning is ongoing through a Policy Advisory Group comprised of state and federal government entities, trade groups representing health care, and other essential partners. The number of hospitals to be integrated post-pilot has yet to be determined, but the app should be capable of scaling to meet demand.
33	RFP mentions "all required events will be virtual"- We would like to know if the teams can work from outside the US (India/Canada) as well?	There are no restrictions that would prohibit this.
34	Support Hours – What support hours are you looking for I.e., 24*7*5 (CST)?	THSA does not have a specific requirement for support hours, but reserves the right to take this into consideration as a factor weighed against other proposals.
35	We are assuming the data required i.e., Bed utilization etc. all will be pre-populated in the EHR and can be accessible through Epic or Cerner APIs. Is this assumption correct?	Yes
36	We are assuming an App or Web interface already exists to capture manually uploaded data from these hospitals. Will that same App or Web interface be reused here?	No
37	The SANER App will support the Push option – when acting as Measure Source at the site. We are assuming the App will be deployed at each facility and will push this information to a central server, possibly TX Public Health (which acts as another Measure Consumer like our App, but not in scope here) – is this assumption correct?	Yes
38	Our assumption is that the SANER Server will be hosted on-prem along with the App and help query the Data Source i.e., EHRs and pass on to the Measure Consumer i.e., the SANER App. Is this assumption correct?	The SANER Server would likely be hosted in the Cloud. The SANER App would support querying the EHR as a data source.
39	What platforms should the App support? iOS, Android as well or only Web?	The App is a back-end service with no user facing UI.

40	The App is expected to capture data from the SANER server and will calculate and display the measures – as specified by Measure Computer, Measure Source and Measure Definition Consumer actors under SANER IG. Will this app need UX design in addition to UI development? What kind of dashboards are expected in this App? Or will this be completely a backend App to push data to another Consumer?	See Answer #39
41	Do you have any budgetary constraints that we need to factor in our proposal?	The contract will be reimbursable time and materials costs. Please include hourly rates with an estimate of the number or hours required. Assume that the THSA will include a not-to-exceed amount in any contract awarded based at least in part on these figures.
42	Can we assume that the measures in question will be defined, validated, and tested outside of the scope of this proposal?	Yes
43	Does THSA anticipate covering the full dataset listed in Exhibit E -- Texas DSHS Data Element Dictionary in the pilot or a subset of data elements?	We anticipate testing a subset of data elements, depending on the pilot hospitals capacity to supply data from other (non-EHR) Health IT solutions.
44	Does THSA anticipate restricting EHR FHIR data to USCDI?	We anticipate using the Hospital's EHR capabilities as a Data Source.
45	Will non-USCDI data be posted to the SANER Server? (ie, not the responsibility of contractor to post, only to stand up the server)	Possibly
46	Can we assume that THSA will provide the host environment for all components for the pilot?	Yes, Ai will provide hosting of all components except for the EMR systems.
47	Does THSA anticipate fully autonomous reporting or will there be a requirement for a user interface to provide data not accessible via SANER?	The reporting will be fully autonomous.
48	Are there special security considerations for the development of the application? Specific security guidelines/standards that need to be followed?	The proposed solution must meet the requirements of the EMRs that are part of this project.
49	Can THSA confirm the period of performance? The procurement schedule (pg. 5) says 4/26-12/31, so 8 months plus an additional 12 months of software support?	The contract end date of 12/31/2021 is subject to change. Vendor 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.
50	The RFP requests that the response "6. Set forth the proposed fee for the deliverables." under the Experience section,	The contract will be reimbursable time and materials costs. Assume that the THSA will include a not-to-exceed amount in any contract

	however the Cost section requests that labor hours and rates be provided. Can you please clarify the type of budget that should be proposed, either firm fixed price (based on deliverables) or T&M. If based on deliverables can this request be moved to the Cost section?	awarded based at least in part on these figures.
51	We are based/registered in Naperville Illinois, the US, but we have the developer's team at our offshore center in the Asia Region - India, so is this possible for a company like us to bid on this RFP? where all development work will be done in India.	There are no restrictions that would prohibit this.
52	Could you let us know if you have a local preference or are you open to a Canadian agency that works with clients in the US for projects of this nature at this time?	No local preference.
53	As the aspects of work are vague at this time, would hourly rates be sufficient, or knowing the vagueness could we state that and guess what the potential # of hours would be?	The contract will be reimbursable time and materials costs. Please include hourly rates with an estimate of the number or hours required. Assume that the THSA will include a not-to-exceed amount in any contract awarded based at least in part on these figures.
54	Could you let us know what the ideal timeline would be to have this project completed for yourselves?	The contract end date of 12/31/2021 is subject to change. Vendor 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.