VA ELECTRONIC HEALTH RECORD MODERNIZATION (EHRM) SYSTEM
PERFORMANCE WORK STATEMENT (PWS)
DEPARTMENT OF VETERANS AFFAIRS

Office of Electronic Health Record Modernization (OEHRM)

EHRM Interoperability Design and Development

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Contents

1.0 BACKGROUND

The mission of the Department of Veterans Affairs (VA) is to provide benefits and services to Veterans of the United States. In meeting these goals, VA strives to provide high quality, effective, and efficient Information Technology (IT) services to those responsible for providing care to the Veterans at the point-of-care, as well as throughout all the points of the Veterans' health care, in an effective, timely and compassionate manner. VA depends on Information Management/Information Technology (IM/IT) systems to meet mission goals.

On May 17, 2018, VA entered into a ten-year indefinite-delivery, indefinite-quantity (ID/IQ) sole-source contract with Cerner Government Services, Inc. (Cerner) to acquire the Electronic Health Record (EHR) system being deployed by the Department of Defense (DoD) and related services for deployment and transition across the VA enterprise in a manner that meets VA needs, and which will enable seamless healthcare to Veterans and qualified beneficiaries. Procurement of a single common system across VA and DoD shall achieve VA's goal of seamless care for Veterans by facilitating the transition of active duty military members to VA and improving their timely access to the highest quality of care.

Cerner's EHR solution shall provide VA with a single system that can store and retrieve administrative, clinical, laboratory, radiology, pharmacy and scheduling data, and can interact with other internal and external systems. Modernization of VA's EHR will support a Veteran-centric, team-based care model, with modern decision support tools; clinical information content services; identification, communication and standardization of care paths; and resource provisioning. This will improve interoperability, performance, and user experience for the majority of the health care delivery and ancillary teams responsible for directly or indirectly providing health care services; and in turn will improve quality, safety, and timeliness of health care services delivered to Veterans.

Cerner shall provide a comprehensive EHR solution and services as specifically defined in the EHRM Basic Contract. Under this task order (TO), Cerner shall provide support by designing, developing, testing, and implementing VA-specific technical frameworks required for VA to enable successful Initial Operating Capability (IOC) deployment.

For purposes of this Performance Work Statement (PWS), the VA EHR solution shall be referred to as the VA Electronic Health Record Modernization (EHRM) System.

2.0 APPLICABLE DOCUMENTS

The documents in Paragraph 3.0 in the EHRM Basic PWS apply to the performance of this effort. In addition, the following documents also apply to this TO:

a) Most current version of the document titled, "PWS - EHRM TO 0007 Technical Baseline v4.1"
b) Most current version of the document titled, "TO7 – 0004GA HISP Integration Requirements Definition Documentation – 06042019 – Version 1.1"

    c) Most current version of the document titled, "TO7 – 0004FA Data Exchange with Federal, State, and Local Registries Requirements Definition Documentation – 06182019 – Version 1.0"

    d) Most current version of the document titled, "TO7 – 0011A Community Care Analysis Results – 07122019 – Version 1.0"

3.0 SCOPE OF WORK

The Contractor shall provide design and development services for interoperability solutions. These tasks include:

    a) Project Management
    b) Initial Operating Capability (IOC) Coordination
    c) National Health Information Exchange (HIE)
    d) Direct Message Capabilities
    e) State Immunization Registries
    f) State Prescription Drug Monitoring Programs (PDMPs)
    g) Integration and Functional Testing
    h) User Acceptance Testing
    i) Digital Imaging and Communication in Medicine (DICOM) Image Sharing
    j) Additional Interoperability Technical Support

3.1 APPLICABILITY

This Task Order (TO) effort PWS is within the scope of paragraph 5.5, "VA Enterprise EHRM Baseline Preparation," and 5.10.4: "Seamless interoperability / Joint Industry Outreach" of the EHRM Basic PWS.

3.2 ORDER TYPE

The effort shall be proposed on a Firm Fixed Price (FFP) basis.

4.0 PERFORMANCE DETAILS

4.1 PERFORMANCE PERIOD

The period of performance (PoP) shall be 12 months from the date of award, with one, six-month option period, and four optional tasks.

4.2 PLACE OF PERFORMANCE

Efforts under this TO shall be performed both in Contractor facilities, as well as VA facilities. Program meetings may also be held at VA Central Office (VACO), some of which may require in person attendance. Project management activities that occur at the enterprise level shall be performed at Contractor facilities.

4.3   TRAVEL OR SPECIAL REQUIREMENTS

The Government anticipates travel under this effort to support program-related meetings and IOC technical baseline activities throughout the PoP. Include all estimated travel costs in your firm-fixed price line items. These costs will not be directly reimbursed by the Government. The total estimated number of trips for this effort shall be proposed by the Contractor.

4.4   CONTRACT MANAGEMENT

All requirements of Section 9.0 of the EHRM Basic PWS apply to this effort. This TO shall be addressed in the Contractor's Monthly Progress Report as set forth in the EHRM Basic Contract.

4.5   GOVERNMENT FURNISHED PROPERTY

Not applicable.

4.6   SECURITY AND PRIVACY

All requirements in Section 7.0 of the EHRM Basic PWS apply to this effort.

It has been determined that protected health information may be disclosed or accessed and a signed Business Associate Agreement (BAA) shall be required. The Contractor shall adhere to the requirements of the BAA executed between the Office of Electronic Health Records Modernization (OEHRM) and Cerner and shall comply with VA Directive 6066 and Veterans Health Administration (VHA) Handbook 1605.05.

4.6.1   POSITION/TASK RISK DESIGNATION LEVEL(S)

The position sensitivity and the level of background investigation commensurate with the required level of access for all PWS tasks is Tier3/Non-Critical Sensitive in accordance with Section 8.7 of the EHRM Basic PWS.

The Tier3/ Non-Critical Sensitive Position Sensitivity and Background Investigation requirements identify, in effect, the Background Investigation requirements for Contractor individuals, based upon the tasks the particular Contractor individual will be working. The submitted Contractor Staff Roster must indicate the required Background Investigation Level for each Contractor individual based upon the tasks the Contractor individual will be working, in accordance with their submitted proposal.

5.0   SPECIFIC TASKS AND DELIVERABLES

The Contractor shall perform the following:

5.1   PROJECT MANAGEMENT

The Contractor shall provide a single Point of Contact for management of all project tasks, with individual subject matter experts assigned to each individual task. The

Contractor shall include a Communications Plan in the CPMP to cover overall and individual POC communications as well as issue escalation procedures.

The Contractor shall ensure all interoperability solutions meet all applicable cyber security requirements of the EHRM contract. As applicable for the requirements in this TO, the Contractor shall adhere to the most current strategies and plans developed under the EHRM Project Management, Planning, Strategy and Pre-IOC TO (Program Management Task Order 0001 paragraph 5.4.7: Interoperability Plan).

5.1.1 CONTRACTOR PROJECT MANAGEMENT PLAN

The Contractor shall deliver a Contractor Project Management Plan (CPMP) that lays out the Contractor's approach, timeline and tools to be used in execution of this TO. The CPMP should take the form of both a narrative and graphic format that displays the schedule, milestones, risks and resource support. The CPMP timeline and schedule shall include Cerner as well as VA dependencies for registry and report development.

The CPMP shall also include how the Contractor shall coordinate and execute planned, routine, and ad hoc data collection reporting requests as identified within the PWS. The initial baseline CPMP shall be concurred upon and updated in accordance with Section B of the TO. The Contractor shall update and maintain the VA Program Manager (PM) approved CPMP as required throughout the PoP.

Deliverable:
>   A. Contractor Project Management Plan

5.1.2 REPORTING REQUIREMENTS

The Contractor shall provide a Monthly Progress Report in accordance with Section 9.6.1.1 of the EHRM Basic PWS. The Monthly Progress Report shall include status and timelines on all interoperability tasks completed, in development and in the pipeline for IOC and post-IOC. The Progress Report shall be divided into separate sections to facilitate review by VA content owners.

For each major work element described in this TO, Cerner will provide/update applicable architectures/documentation as part of the VIP Technical Documentation required by PWS paragraph 5.2. These updates may include requirements, architecture (updates to existing OV-1, SvcV-1, SV-1), development views, data models, data flow diagram, and decision package for EHRM governance approval.

For all interfaces, integrations and data flows developed under the base or optional tasks of this TO, the Contractor shall provide Interface Control Documents (ICDs) and follow the interface development and test processes defined in Task Order 8.

Interfaces, integrations and data flows:
- Base tasks:
  - 5.3.2.1: Social Security Administration (SSA) Integration
  - 5.3.2.2: Walgreens Integration to HIE
  - 5.3.3 a: Defense Enrollment Eligibility Reporting System
  - 5.3.3 b: VET360
  - 5.3.3 d: Veterans Data Integration and Federation (VDIF)
  - 5.3.3 e: Joint Legacy Viewer (JLV)
  - 5.3.3 f.: Legacy Direct Web Portal Integration
  - 5.4: VA Direct
- Optional tasks:
    Interfaces, integrations and data flows will be identified and priced as appropriate with each option exercise

Deliverable:

A.   Monthly Progress Report
B.   Interface Control Documents

5.2   IOC COORDINATION

The Contractor shall coordinate scheduling and Go-Live activities with the EHRM IOC deployment team to ensure all stakeholders are informed of risks, timelines, and IOC tasks required. The Contractor shall provide monthly status updates focused on IOC activities to ensure effective communication between the relevant TO teams.

5.3   NATIONAL HIE

The Contractor shall provide a national HIE solution to allow providers to query, find, access use and send standards based, consumable Veteran health information so that VA providers and community partners have access to complete Veteran health records.

5.3.1 CERNER HIE CAPABILITIES

By IOC the Contractor shall:

a) Ensure Cerner HIE (Enclave) solution obtains Sequoia Certification and production-level Gateway certificates for full eHealth Exchange participation.
b) Ensure the Cerner Clinical Document Architecture (CDA) and aggregated Cerner summary document containing Cerner and Veterans Data Integration and Federation (VDIF) data pass any required Sequoia Content Validation processes on schedule.
c) Maintain data provenance as received for all retrieved community partner data (particularly the Problems, Allergies, Medications, Procedures and Immunizations (PAMPI) domains that are reconciled to the chart).
d) Maintain data provenance as received of Millennium encounter level domains in outbound CDAs so that the joint HIE can apply data filtering needed by the DoD and VA participation policies.
e) Honor VA consent policies

f) Ensure that electronic data interchange personal identifiers EDIPI are used to identify patients within the HIE and in all interfaces between the Cerner HIE as implemented for joint VA/DoD systems.

5.3.2 EXTERNAL PARTNER MIGRATION

The Contractor shall work with eHealth Exchange to move external partners not already connected to National Level Gateway Service (NLGS) Hub to the NLGS Hub upon the joint VA/Cerner decision to do so. The work includes decommissioning the interface between the Cerner HIE (CASVAN) and the partner through the eHealth Exchange and testing with the partner once the NLGS Hub connection is established.

5.3.2.1 SSA INTEGRATION

The Contractor shall integrate Social Security Administration (SSA) via the Cerner HIE (Enclave) per agreed upon Course of Action (COA). In which SSA sends VA requests to Cerner HIE (Enclave) and sends DoD requests not to Cerner HIE but following current practice. This COA excludes attestation of consent.

5.3.2.2 WALGREENS INTEGRATION

Walgreens Integration By IOC

The Contractor shall implement in the Cerner HIE (Enclave) support for eHealth Exchange Document Submission Web Service Interface Specification to receive regular submission of Walgreen's immunization records via the eHealth Exchange for manual reconciliation into Millennium.

Walgreens Integration Post-IOC

Using Record Synchronization Services, the Contractor shall parse the data received from Walgreens and automatically store it in Millennium, without the need for manual reconciliation.

5.3.3 INTERFACE PROCESSING FOR HIE

The Contractor shall develop Cerner HIE solution changes required to process interface data flows listed below to accommodate HIE requirements:

a. Defense Enrollment Eligibility Reporting System (DEERS) - Integrate the Cerner HIE (Enclave) solution with the DEERS/Rhapsody/Patient Discovery Web Service (PDWS) to accurately identify and validate Veteran identities. Integration shall include query when external query received and subscription to updates in DEERS.
b. VET360 – Upon final decision by VA and to the extent required to support Community Data Integration use cases, integrate the Cerner HIE (Enclave) with VET360 to retrieve Veteran contact and demographic for patient discovery; initiate external record queries, retrieve means test and eligibility data for the

SSA administration note; and populate the CommonWell RLS. Integration shall include query when external query received and HIE (Enclave) subscription to updates in VET360.

    i.   Prior to IOC, the Contractor shall receive a batch file of patients consisting of identity traits from VET360, and Enrollment Systems, who have received services at a VA facility in the three years prior to file creation that have no date of death or have a future appointment scheduled. The Cerner HIE (Enclave) shall, in turn, enroll these patients in the CommonWell Record Locator Service (RLS).

c. VDIF: By IOC, the Contractor shall integrate Cerner HIE (Enclave) with VDIF as follows:

    i.   Cerner shall ingest a one-time transmission of Patient Participation Preferences (PPP) (i.e., opt-out status) that need to be implemented by Cerner HIE (Enclave)

    ii.   Cerner shall process PPP flag updates transmitted from VDIF within 5 minutes of receipt at the Cerner boundary

    iii.   Cerner HIE (Enclave) shall disclose records based on PPP flag and VA privacy policies

    iv.   Upon request from external partner the Cerner HIE will query VDIF for a Consolidated Clinical Document Architecture (C-CDA) v2.1 CCD, aggregate it with Millennium data, format the CCD output as requested (C32 CCD, C-CDA CCD v1.1, C-CDA v2.1, C62, C-CDA Single Encounter Summary, Compensation and Pension note, or Means and Eligibility Admin note), and send back to the partner. (For the purposes of this task order, C62 is defined as an unstructured Document Component providing for the capture and storage of patient identifiable, unstructured document content, such as text, PDF, and images rendered in PDF.)

    v.   Cerner HIE shall request from VDIF legacy system CDA documents (C32 CCD, C-CDA CCD v1.1, C-CDA CCD v2.1, C62, C-CDA Single Encounter Summary, Compensation and Pension note, and the Means and Eligibility Admin note) to satisfy external partner requests.

    vi.   Cerner HIE (Enclave) will query CommonWell, eHx Hub, and partners connected to the HIE (CASVAN) as a result of VDIF created pre-fetch queries via admissions, discharges and transfers (ADT) messages for upcoming appointments looking ahead at a VA-defined time period.

    vii.   Cerner HIE (Enclave) shall ingest a one-time push of historical audit events consisting of all available historical sent and received records from VHIE Legacy.

    viii.   Cerner HIE (Enclave) shall forward to VDIF the Walgreens Document Submissions as they are received to allow it to pass through the document to Data Access Service (DAS) to, in turn, push the discrete data into VistA.

e) Joint Legacy Viewer (JLV) - By IOC the Contractor shall:

    i.   Ensure JLV can query for and receive from Cerner HIE (Enclave) a CDA including VA/DoD Millennium data. Ensure Cerner HIE (Enclave) responds to document queries from JLV with CDA containing VA/DoD and community partner data and provenance of external data.

      ii.   Ensure JLV can display CDA or simplified XML content and map to the appropriate data widget.

     iii.   Ensure Millennium can launch JLV.

     iv.   Create interface between Millennium and JLV for consumption of Ignite Fast Healthcare Interoperability Resources (FHIR) APIs. Modify JLV to consume Ignite FHIR APIs to extract discrete Millennium data to be viewed in appropriate JLV widgets. The APIs to be implemented can be found in the JLV Interface Control Document (ICD).

f) Legacy Direct Web Portal Integration: Upon request from VA Direct Web Portal, ensure Cerner HIE generates a CDA document consisting of both legacy and Cerner data meeting VA Direct Web Portal specific business rules. Communication with the Cerner HIE shall follow Cross-Enterprise Document Sharing (XDS) and Cross-Community Access (XCA) profiles under Integrating the Healthcare Enterprise (IHE) specifications.

5.3.4 CCDA CONTENT

5.3.4.1   CCDA CONTENT FOR IOC

By IOC the Contractor shall:

a) Define and implement Cerner configurations for HIE aggregated C-CDA CCD (C32, R1.1, R2.1) document sections.
b) Provide a Joint Person-level CCD that will exclude notes from VDIF CCD
c) Request C62 & Single Encounter Summary (SES) from VDIF and pass on to partners as they become available (i.e. regardless if all are registered at IOC).
d) Create "wrapped PDFs" from CCD notes with the ability to turn the wrapped notes feature off when not needed.
e) Define and implement Cerner Millennium CDA configuration for on-demand CCD (i.e.: multi-encounter for Joint HIE aggregation), Single Encounter CCD, Discharge Summary, Referral Note, and Unstructured CCDA document.
f) Define and implement strategies to prevent and reduce de-duplicated data from received and sent documents.
g) Ensure semantic data integrity across Millennium and VDIF documents.
h) Assess options (COAs) for mitigation solutions for allowing VA clinical notes to be returned by the Joint HIE if the VDIF Doc registration process does not complete by IOC. One alternative may be the joint HIE parsing the VA clinical notes from the VDIF C-CDA CCD and creating C62 wrapped PDFs for returning to eHX Partners.

The Contractor shall provide CCDA Content Documentation including:

- De-duplication Rules
- COA mitigation plan for Joint HIE Doc registration process.
- Document Type Comparative Analysis Results

Deliverable:

A. CCDA Content Documentation

5.3.4.2   CCDA CONTENT POST-IOC ENTRY

Post IOC entry, the Contractor shall define and implement Cerner Millennium CDA configuration for Progress Notes.

5.3.5   HIE REPORTING

The Contractor has committed to providing business access to reporting capabilities for review of transactions, volumes, performance monitoring, business office troubleshooting and real-time monitoring capabilities as defined by VA.

HIE REPORTING FOR IOC Entry

By IOC, the Contractor shall:

a) Develop detailed accounting of disclosures report and detailed received documents report as identified in the HIE Reporting assessment completed as part of TO 0007: EHRM Technical Baseline Design and Development.
b) Analyze and implement business rules and alerts from the Cerner HIE system performance monitoring tool (Grafana) as related to system performance.
c) Provide reports on requests from partners and disclosure to partners by Logical Observation Identifiers Names and Codes (LOINC) code as well requests by VA and disclosures to VA by LOINC code.
d) Develop detailed and summary reports on Walgreens immunization records received by Cerner HIE.
e) Provide user access for VA staff at IOC and Non-IOC site users to generate Accounting of Disclosures.
f) Work with VHIE program office to develop SLA and set of KPIs for HIE system Performance Requirements.

HIE REPORTING POST-IOC ENTRY

Post IOC, the Contractor shall:

a) Provide HIE Reporting ability to render received and sent CDAs with Cerner style sheet
b) Develop detailed report on patient summary documents shared with SSA in support of SSA Disability Determination.

Deliverable:

A. SLA and KPIs for HIE System Performance Requirements

5.3.6   CDA STORAGE AND RECORDS RETENTION

By IOC the Contractor shall:

a) Assist VA in ensuring the System of Records Notices (SORNs) related to new storage are updated.
b) Retain data according to VA Data Retention Policies schedule below. The periods identified below represent the current VA policy as of the award of this TO. VA shall issue an administrative modification to this TO in the event there is a change to the referenced retention periods.

Record	Retention Period
VA Generated Documents for HIE	90 days for troubleshooting and 5 years for analytics [General Records Schedules 5.2: Transitory and Intermediary Records #: DM-GRS-2017-0003]
Community Provider Generated Exchange Data	90 days to satisfy records retention policy and 5 years for analytics
Retail Pharmacy Generated Immunization Submitted Documents	5 years for analytics
Retail Pharmacy Immunization Data	75 years after last episode of care
VA Generated Direct Messages and Attachments	7 years to satisfy records retention policy and 5 years for analytics
Community Generated Direct Messages and Attachments (includes C-CDA CDAs, PDF and other attachments)	7 years to satisfy records retention policy and 5 years for analytics
Patient Preferences - Disclosure Audit Records (Accounting of Disclosures)	75 years after last episode of care
e-Authorization Forms from External Partners (e.g. SSA)	75 years after last episode of care
e-Authorization Data from External Partners (e.g., SSA)	75 years after last episode of care

c) Ensure CareAware Multimedia (CAMM) capacity to store documents returned from Millennium pre-fetch and just-in-time queries to community partners per volumes identified in EHRM TO 0007 Technical Baseline Design and Development.
d) Ensure Millennium Problems, Allergies, Medications, Procedures and Immunization (PAMPI) staging tables have sufficient capacity to store data returned from Millennium pre-fetch and just-in-time queries to community partners per volumes identified in EHRM TO 0007 Technical Baseline Design and Development.
e) Post-IOC, the Contractor shall store external partner discrete data from CDAs in HealtheIntent per results of assessment in TO 0007: Technical Baseline Design and Development.
f) Provide Cerner HIE Proof of Conformance with VHIE Retention Polices

Deliverable:

A. Proof of Conformance with VHIE Retention Policies

5.3.7 REPLICATE VDIF CDA CREATION

By IOC the Contractor shall:

a) Design, develop, test, and deploy CDA creation from HealtheIntent VistA-migrated data to the extent possible for IOC.

Post IOC the Contractor shall:

a) Design, develop, test, and deploy enhancements to CDAs created from HealtheIntent VistA-migrated data.

5.3.8 VHIE PORTAL MIGRATION:

By IOC the Contractor shall to the extent possible:

a) Assess and propose a VHIE Strategic and Roadmap to replace VHIE functionality to register Patient Participation Preferences (i.e. opt out and rescind opt out), in compliance with VHA Privacy policies.
b) Store the signed opt out / opt back in forms in the patient chart.
c) Provide capability to report on the count and list of patients with PPP changes, and other information provided with the audit log.
d) Analyze and document Courses of Action for execution of integration with other patient-facing portals for inclusion in the Patient Participation Preferences Transition Plan.

Deliverable:

A. Patient Participation Preferences Transition Plan

5.4 DIRECT MESSAGE CAPABILITIES

By IOC the Contractor shall:

a) Configure and test Cerner Health Internet Service Provider (HISP) to authenticate the VHIE Direct Restful API client
b) Make the Cerner HIE's IHE web service available to the VA Direct Messaging client.
c) Configure and test Cerner HISP to receive Direct messages on VA's behalf sent by an external HISP to the direct.va.gov and patient.direct.va.gov domains.
d) Configure and test Cerner HISP to route and push Direct messages to the VA Direct Messaging Restful API for the user accounts registered at the VA Direct Messaging Web Portal.

e) Provide support for obtaining Cerner HISP Authority to Operate (ATO) and Authority to Connect (ATC), ensuring implementation of any HISP changes required to meet cyber security requirements.
f) Validate that all VA users provided via the User Provisioning API are migrated.
g) Create new VA Organization Certificates for patient and provider domains
h) Transport Direct messages that meet the file size standard to external providers.
i) Ensure the system generates a CDA document consisting of both legacy and Cerner data upon request from Direct Secure Messaging.
j) Provide a monthly status report starting from contract award and through completion of this task; the monthly status report shall provide information on progress made related to the direct messaging task in this TO.

Deliverable:

A. Direct Messaging Monthly Status Report

5.5 STATE IMMUNIZATION REGISTRIES

The Contractor shall provide a State Immunization Registry Monthly Report including details on connectivity for Immunization Registry reporting and query capabilities.

Post IOC entry the Contractor shall implement connectivity to the Immunization Registries for Immunization Registry Reporting in the States of Idaho, Oregon, Alaska, and Montana.

Post IOC entry the Contractor shall implement connectivity to the Immunization Registry for Immunization Registry Query capabilities in the States of Idaho, Oregon, Alaska, and Montana.

Six months post-IOC entry the Contractor shall deliver an Accelerated Nationwide Registry Immunization Integration Assessment. It should include COAs, feasibility, and costs of accelerated plans. The assessment should include IZ Gateway as an option or a component of an option. For the purposes of this TO, "IZ Gateway" refers to the "Provider to IIS Interoperability" project undertaken under an inter-agency agreement between the U.S. Center for Disease Control (CDC) and the U.S. Department of Health and Human Services (HHS); the project seeks to simplify consumer and multi-jurisdictional provider access to state immunization records.

Deliverable:

A. State Immunization Registry Monthly Report
B. Accelerated Nationwide Immunization Registry Integration Assessment and COAs

5.6 STATE PRESCRIPTION DRUG MONITORING PROGRAMS

Post-IOC entry the Contractor shall provide access to State Prescription Drug Monitoring Program (PDMP) data in the States of Idaho, Oregon, and Alaska. The Contractor shall include State PDMP access status in the Monthly Progress Report.

5.6.1 ADDITIONAL STATE PRESCRIPTION DRUG MONITORING PROGRAMS (OPTIONAL TASK)

Post-IOC entry the Contractor shall provide access to State PDMP data in the State of Montana. The Contractor shall include State PDMP access status in the Monthly Progress Report.

5.7 INTEGRATION AND FUNCTIONAL TESTING

The Contractor shall:

a) Identify a single point of contact to coordinate all interoperability solution testing.
b) Develop an Interoperability Test Plan and approach tailored to the scope of this TO. The Interoperability Test Plan shall be integrated into the overall Contractor Master Test Plan with input and concurrence from the VA EHRM Test Lead.
c) Develop Testing Artifacts such as test scenarios, test cases, test data, and test results to execute and report on data migration testing activities. The Contractor Test Report of Findings/Test Analysis Report shall serve as the key test artifact for the formal deliverable process. Other test artifacts such as test cases, test results, etc. shall be entered and maintained in tools as outlined in Contractor Master Test Plan and OEHRM Test Evaluation Master Plan as the work is being executed. The Contractor shall coordinate with VA Test & Evaluation team to define methodology to test the integrity of each development item.
d) Provide support for execution of VA Test & Evaluation acceptance, data integrity, and validation testing including defect/issue process, assistance in troubleshooting/triaging, jointly troubleshooting issues, and responding to findings from test activities.
e) Conduct system performance monitoring to ensure scalability, reliability and availability of the system.
f) Test and validate production environment with Interoperability Care code deployed.
g) Provide Interoperability updates to the Master Test Plan including:
   i. Contractor Test Report of Findings/Test Analysis Report
   ii. Testing Artifacts (such as test scenarios, test cases, test data, and test results)

5.8 USER ACCEPTANCE TESTING (OPTIONAL TASK)

The Contractor shall provide demonstration and/or support VHIE's Lead in user acceptance testing as appropriate for all functionality developed in this TO for example: coordination with VA on approach, environments, strategy, test bed and schedule for customer acceptance of functionality developed in this TO, including but not limited to CDA documents, aggregated CDA documents, patient participation policies, HIE

business rules, privacy policies, Direct Messaging solution, reporting. The Contractor shall support developing approach for acceptance and drive defect remediation. The Contractor shall provide User Acceptance Documentation including:

- Environment access
- Functional Checklists
- Functional Test Outcome Reporting Process
- Functional Test Outcome Reporting

Deliverable:

A. User Acceptance Documentation

5.9 DICOM IMAGE SHARING FOR IOC (OPTIONAL TASK)

The Contractor shall provide a solution to import and host Digital Imaging and Communications in Medicine (DICOM) images and PDF files (by DICOM wrapping the pdf files so they can be added to the Veteran's study/exam) from private hospitals and providers into the EHR system. This includes importing DICOM images into the VA from community providers or exporting them out of VA to community providers.

Cerner shall add DICOM Image sharing to the EHRM implementation across the VA enterprise to provide optimal workflow experience.

The solution shall have the following capabilities:

a) VA to easily import CDs/DVDs within the Cerner EHR context (will be a standalone workflow at VAMCs where the Cerner EHR is not deployed) and hand the CD/DVD back to the Veteran on the spot.
b) VA to easily receive images electronically from any community provider and display those within the Cerner EHR in the patient's chart for the VA to review and determine if they are appropriate to be imported to the VA systems and easily import to the VA systems (if applicable).
c) VA to easily send images electronically to any community provider (or other organizations for things such as research if applicable) for them to view and/or download for their usage.

The base rollout of DICOM Image Sharing shall be in accordance with the EHRM Deployment Schedule.
Post IOC the Contractor shall deliver an Accelerated Enterprise DICOM Image Sharing Assessment. It should include performance analysis, transactional volume broken down by CD/DVD uploads versus electronically shared images, impact to clinical workflow, feasibility and costs of an accelerated deployment. In addition, the assessment should define how the solution compares to alternatives with regards to integration impacts of community partners and allows for Interoperable image sharing between VA and community partners.

5.10 ADDITIONAL INTEROPERABILITY TECHNICAL SUPPORT (OPTIONAL TASK)

Interoperability requirements will continue to evolve to meet VA priorities and may require completion of additional capabilities throughout the PoP of this TO. VA may exercise this optional task for additional interoperability support multiple times throughout the period of performance for a total amount not to exceed the NTE CLIN ceiling. Additional requirements may include items related to scope identified in sections 5.1 – 5.9 of this Task Order, as well as items identified in the subsections below:

1) **HIE Reporting**
   a) Provide recurring HIE reporting data ETL of transaction data from Cerner HIE reporting system to VA Clinical Data Warehouse (CDW) to support Community Coordinators reporting and VHIE IO Program reporting as specified in HIE Reporting assessment completed as part of TO 0007.
      i) Provide a one-time load of reporting data from time of IOC to first extraction transformation load (ETL)
      ii) Establish procedure to maintain/update HIE data flow and ETL from Cerner HIE reporting system as EHRM progresses
   b) Provide recurring inbound CCDA ETL from Cerner HIE to CDW to support Community Coordinator analytics and business and document retention requirements.
   c) Provide recurring outbound CCDA ETL from Cerner HIE to CDW to support Community Coordinator analytics and business and legal document retention requirements.
2) **SSA Integration**
   a) Work with the eHealth Exchange to move SSA connection to NLGS Hub upon the decision to do so.
   b) Implement post-IOC Course of Action subject to SSA, VA and DoD business readiness to streamline and improve query and retrieval of VA/DoD health information by SSA. The goal is to make the joint HIE the one and only responder to SSA requests.
3) **Direct Messaging Capabilities**
   a) In conjunction with VA conduct a data quality gap analysis between the CCDAs sent by Message Center vs the VHIE Direct Messaging Web Portal to evaluate the content completeness, terminologies, and structural.
   b) Enhance Cerner Millennium message center to provide queries to support Accounting of Disclosure reporting and auditing by the users.
   c) Assess feasibility and effort to support OAuth 2.0 for outbound message
4) **JLV Integration**
   a) Embed the HIE Viewer in JLV to display discrete data domains from community partners.
   b) Modify JLV to consume additional Ignite FHIR APIs to extract discrete Millennium data for viewing in appropriate JLV widgets.
   c) Ensure JLV is assessible at sites converted to Millennium via Substitutable Medical Applications, Reusable Technologies (SMART) on FHIR app launch.

5) **CDA Documents**
   a) Post-IOC, assess modifications to CDA content required by VA
6) **External Partners**
   a) In collaboration with VA, evaluate and recommend community partners as trusted sources for Record Synchronization Services (RSS) auto synchronization and reconciliation.
   b) Coordinate and work with various VA offices to bring on new partners via the eHX Hub, CW and CASVAN P2P.
   c) Provide troubleshooting and technical support to VA when end-users encounter any issues retrieving HIE docs.
   d) Support and help migrate doc submission Community Care Providers to Hub once Hub supports that type of exchange.
   e) Support broadcast and multicast with eHX Hub as technology evolves
   f) Support integration with CMS to allow for electronic reporting and data exchange
7) **HIE**
   a) Complete analysis of implementing HIE for expanded purposes of use (e.g., payment, coverage)
   b) Complete analysis of discrete data labeling (DS4P, CUI Requirements) in accordance with federal policies
8) **VBA Integration**
   a) Post-IOC, ensure the Cerner HIE (Enclave) can initiate queries under the purpose of "use = coverage."

5.11   OPTION PERIOD 1

The Contractor shall continue sustainment on all IOC tasks and continue any necessary development and sustainment of ongoing all Post-IOC tasks above.

6.0   GENERAL REQUIREMENTS

6.1   PERFORMANCE METRICS

The table below defines the Performance Standards and Acceptable Levels of Performance associated with this effort. The Government may also utilize the commercially available and VA-specific Key Performance Indicators (KPIs) and Service Level Agreements (SLAs) defined at the ID/IQ level to measure performance under this TO, as applicable.

Performance Objective	Performance Standard	Acceptable Levels of Performance
A. Technical / Quality of Product or Service	1. Shows understanding of requirements 2. Efficient and effective in meeting requirements	Satisfactory or higher

Performance Objective	Performance Standard	Acceptable Levels of Performance
	3. Meets technical needs and mission requirements 4. Provides quality services/products 5. Meets performance thresholds/metrics defined in applicable Service Level Agreements	
B. Project Milestones and Schedule	1. Quick response capability 2. Products completed, reviewed, delivered in accordance with the established schedule 3. Notifies customer in advance of potential problems	Satisfactory or higher
C. Staffing	1. Currency of expertise and staffing levels appropriate 2. Personnel possess necessary knowledge, skills and abilities to perform tasks	Satisfactory or higher
D. Invoicing	1. Invoices are current, accurate, and complete.	Satisfactory or higher
E. Management	1. Integration and coordination of all activities to execute effort	Satisfactory or higher

The COR will utilize a QASP throughout the life of the TO to ensure that the Contractor is performing the services required by this PWS in an acceptable level of performance. The Government reserves the right to alter or change the QASP at its own discretion. A Performance Based Service Assessment will be used by the COR in accordance with the QASP to assess Contractor performance.

6.2 SECTION 508 –INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) STANDARDS

All requirements in Sections 8.10, including subparagraphs, of the EHRM Basic PWS apply to this effort. Deliverable requirements are further defined in the following subparagraphs. The Contractor shall comply with the technical standards at: https://www.access-board.gov/guidelines-and-standards/communications-and-it/about-the-ict-refresh/final-rule/single-file-version

6.2.1 REPRESENTATION OF CONFORMANCE

The Contractor shall provide a Section 508 Subject Matter Expert lead for VA EHRM 508 resources to work with. The Contractor shall adhere to the VA-approved Section 508 Test and Delivery Plan and Section 508 Accessibility Roadmap delivered under TO 0001. The Contractor shall update the Government Product Accessibility Template (GPAT) and/or Voluntary Product Accessibility Template (VPAT) delivered under TO 0001 to indicate the level of Section 508 conformance as updates are made to its products and/or services to ensure and sustain 508 compliance.

The Contractor shall work closely with VA Section 508 representatives to verify Section 508 conformance of its products and/or services.

6.2.2 ACCEPTANCE AND ACCEPTANCE TESTING

The Contractor shall provide Final Section 508 Compliance Test Results. The Section 508 Test Results shall include a GPAT/VPAT Conformance Statement validating conformance to Section 508 Refresh Success Criteria and Conformance Requirements for already-developed ICT deliverables.

The Final Section 508 Test Results shall be reviewed and approved by VA Section 508 representatives to validate conformance to Section 508 Refresh Success Criteria and Conformance Requirements for ICT deliverables.

For software development for VA interfaces/systems, the Contractor shall prepare and submit a Section 508 Conformance Validation Package with content as outlined in VA Process Asset Library, Software Development Product Build process map.

The Section 508 Conformance Validation Package shall be reviewed and approved by VA Section 508 representatives to validate conformance to Section 508 Refresh Success Criteria and Conformance Requirements for ICT deliverables.

Automated test tools, manual techniques, and checklists are used in the VA Section 508 compliance assessment.

Deliverable:
      A. Final Section 508 Compliance Test Results for ICT Deliverables
      B. Section 508 Compliance Validation Package for ICT Deliverables

6.3 ORGANIZATIONAL CONFLICT OF INTEREST

All functions related to Acquisition Support shall be on an advisory basis only. Please be advised that since the awardee of this Task Order will provide systems engineering, technical direction, specifications, work statements, and evaluation services, some restrictions on future activities of the awardee may be required in accordance with FAR 9.5 and the clause entitled, Organizational Conflict of Interest, found in Section H of the

EHRM basic contract. The Contractor and its employees, as appropriate, shall adhere to the corporate-level Non-Disclosure Agreement signed under TO 0001.

6.4   DELIVERABLES

The Contractor shall provide deliverables for Government review and acceptance IAW with Section B.2 of the Task Order. The Contractor shall incorporate Government feedback provided via the OEHRM Deliverables review process into Task Order deliverables as applicable. Feedback shall be incorporated in either the resubmission or next required submission of the deliverable based upon the timeframe in which it is provided by the Government. For Government feedback requiring additional discussion and/or clarification, the Contractor shall coordinate language updates with VA to resolve and finalize revisions to the affected deliverable. The Contractor shall appropriately mark and date deliverables to maintain version control using the following format: TO Number – CLIN Number Formal Deliverable Title – Deliverable Due Date IAW Section B.2– Version X.X. The Contractor shall annotate major (initial submission) and minor (resubmission) deliverable releases using a numerical system (e.g. Initial submission: TO 0001 – 0001AA Contractor Project Management Plan - August 2018 – Version 1.0; Resubmission: TO 0001 – 0001AA Contractor Project Management Plan – August 2018 – Version 1.1). Resubmitted deliverables shall maintain the original due date defined in Section B.2 of the TO. The Contractor shall provide discrete deliverables in separate email submissions. Email submissions shall include the Contract/Task Order numbers and corresponding deliverable CLIN number. The Contractor shall track updates in both major and minor deliverable releases in an agreed upon format, such that the Government can identify and review language revisions for acceptance.

CONTRACTOR EMPLOYEE
PERSONAL FINANCIAL INTEREST/PROTECTION OF SENSITIVE INFORMATION
AGREEMENT

This Agreement refers to Contract/Order _____ entered into
between the Department of Veterans Affairs and _____ (Contractor).

As an employee of the aforementioned Contractor, I understand that in connection with
my involvement in the support of the above-referenced Contract/Order, I may receive or
have access to certain "sensitive information" relating to said Contract/Order, and/or
may be called upon to perform services which could have a potential impact on the
financial interests of other companies, businesses or corporate entities. I hereby agree
that I will not discuss or otherwise disclose (except as may be legally or contractually
required) any such "sensitive information" maintained by the Department of Veterans
Affairs or by others on behalf of the Department of Veterans Affairs, to any person,
including personnel in my own organization, not authorized to receive such information.

"Sensitive information" includes:

(a) Information provided to the Contractor or the Government that would be
competitively useful on current or future related procurements; or

(b) Is considered source selection information or bid and proposal information as
defined in FAR 2.101, and FAR 3.104-4; or

(c) Contains (1) information about a Contractor's pricing, rates, costs, schedule,
or contract performance; or (2) the Government's analysis of that information;
or

(d) Program information relating to current or estimated budgets, schedules or
other financial information relating to the program office; or

(e) Is properly marked as source selection information or any similar markings.

Should "sensitive information" be provided to me under this Contract/Order, I agree not
to discuss or disclose such information with/to any individual not authorized to receive
such information. If there is any uncertainty as to whether the disclosed information
comprises "sensitive information", I will request my employer to request a determination
in writing from the Department of Veterans Affairs Contracting Officer as to the need to
protect this information from disclosure.

I will promptly notify my employer if, during my participation in the subject
Contract/Order, I am assigned any duties that could affect the interests of a company,
business or corporate entity in which either I, my spouse or minor children, or any
member of my immediate family/household has a personal financial interest. "Financial
interest" is defined as compensation for employment in the form of wages, salaries,

commissions, professional fees, or fees for business referrals, or any financial investments in the business in the form of direct stocks or bond ownership, or partnership interest (excluding non-directed retirement or other mutual fund investments). In the event that, at a later date, I acquire actual knowledge of such an interest or my employer becomes involved in proposing for a solicitation resulting from the work under this Contract/Order, as either an offeror, an advisor to an offeror, or as a Subcontractor to an offeror, I will promptly notify my employer. I understand this may disqualify me from any further involvement with this Contract/Order, as agreed upon between the Department of Veterans Affairs and my company.

Among the possible consequences, I understand that violation of any of the above conditions/requirements may result in my immediate disqualification or termination from working on this Contract/Order pending legal and contractual review.

I further understand and agree that all Confidential, Proprietary and/or Sensitive Information shall be retained, disseminated, released, and destroyed in accordance with the requirements of law and applicable Federal or Department of Veterans Affairs directives, regulations, instructions, policies and guidance.

This Agreement shall be interpreted under and in conformance with the laws of the United States.

I agree to the Terms of this Agreement and certify that I have read and understand the above Agreement. I further certify that the statements made herein are true and correct.

_____
_____
Signature and Date   Company

_____
_____
Printed Name   Phone Number