STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

STATEMENT OF WORK

*For*

 CT IMMUNIZATION REGISTRY AND TRACKING SYSTEM CIRTS) &

IMMUNIZATION INTEROPERABILITY WITH ELECOTRONIC HEALTH RECORDS (IIS EHR)

 **December 27, 2016**

 (**X**) New Task () Renewal ( ) Fixed Price (**X**) On Site Support ( ) Remote Support

1. **REQUIRED AGENCY**

State of Connecticut Department of Public Health

Immunization Program, Public Health Initiatives Branch, Family Health Section

410 Capitol Avenue, MS# 11MUN

P.O. Box 340308

Hartford, CT 06134-0308

1. **PROJECTS/SYSTEMS OVERVIEW**

### Objective: Enhance interoperability between Electronic Health Records (EHRs) and CT Immunization Registry & Tracking System (CIRTS) and reception of Health Level 7 (HL7) standard messages into CIRTS. The main focus of this position to complete the onboarding process to move a practice from testing process and perform data quality assessment in staging. Once in production, conduct review for data quality assessment and monitoring the data transmission and frequencies are met as agreed from the practice. This will include error resolution as well as address missing data deem as warnings.

The Connecticut Department of Public Health (CT DPH) has received : PHF 2014 ABUs: Immunization – Capacity Building Assistance for Infrastructure Enhancements to Meet Interoperability Requirements funding to support a pilot project to CT DPH’s capability HL7 message exchange of immunization data between the CT DPH Immunization Information System (IIS) registry with CT immunization providers.

CT DPH’s current Immunization Registry is a Web-based MAVEN/CIRTS application, a COTS product from Consilience Software, Inc. The new CIRTS can be configured to generate and receive messages that meet the HL7 content and messaging standards as defined by the Centers for Disease Control and Prevention (CDC) in HL7 version 2.5.1 format. Messages will be securely exchanged, routed, and verified by the CT DPH PHIN (Public Health Information Network) Messaging System that includes the CDC’s PHIN-MS secure encrypted message sender and receiver, the Pilotfish Technology Integration Engine, and CIRTS registry.

CT Immunization Program is testing their first pilot provider site in January. The position is critical in making this successful and support onboarding many more practices and new vendors

1. **SCOPE OF WORK**

The Connecticut Department of Public Health (CT DPH) has received Affordable Care Act funding to support a pilot project to demonstrate CT DPH’s capability for bi-directional exchange of immunization data between the CT DPH Immunization Information System (IIS) registry with CT immunization providers. This is a 2-year project with one year of funding approved. Current funding is from January 17, 2017 to December 29, 2017.

## Hands-on leadership, technical coordination, Public Health Information Network Messaging (PHIN MS), and interface engine products configuration, and HL7 messaging development and implementation assistance is required in the form of an experienced *Software Engineer* for supporting the DPH Immunization Interoperability project

The ***Software Engineer*** will be atthe “***Software Engineer 3 level***” as described in the State of Connecticut Contract Award No. 12PSX0251 and will have the required skills and experience outlined below, to work as part of the DPH Information Technology team.

**Specific Services Required:** The *Software Engineer* shall provide the following services:

* Leading, coordinating and implementing a secured, reliable, and scalable electronic exchange of immunization information between CIRTS and Immunization providers’ EHR systems;
* Providing technical leadership and hands-on assistance with testing and deployment of the CDC provided PHIN-MS application & tools for secure transformation of information in Health level 7 (HL7) format;
* Providing technical leadership and hands-on assistance with transform and translation of PHIN standards, such as, LOINC and SNOMED;
* Developing and managing the testing & deployment strategy and plans with vendors, third party and practices
* Building HL7, XML messages;
* Acting as the technical liaison to the DPH Immunization program, Providers, Vendors, and State Bureau of Enterprise Systems and Technology (BEST - Hosting) teams;
* Participating in the planning, status and check point meeting with CDC, Vendors and project teams;
* Proactively identifying the project risks/issues, performing the impact assessment and establishing alternate mitigation plans to complete the projects on time and within budget;
* Assisting in the appropriate system and user manuals;

### Required Skills and Experience

* Individuals have achieved a mastery level of experience with nine (9) or more years
* Technology leadership, project coordination and ability to work with highly diversified internal and external teams;
* Hands-on experience with public health or health care organization with specifically immunization background for vaccinations and vaccine forecasting
* Experience leading and managing the testing, rollout and training to large customer base;
* Hands-on experience creating, testing, debugging and deploying messaging standards, formats and protocols – HL7 Version 2.5.1 Release 1,4 and 1.5, HL7 Version 2.8.2 for Stage 3 for 2018 and XML
* Hands-on experience mapping and working with Vocabulary standards, such as, the Logical Observation Identifiers Names and Codes (LOINC) and the Systematized Nomenclature of Medicine (SNOMED) as related to immunization;
* Hands-on experience with PHIN MS and SOAP Web service, CDC WDSL (or) similar technologies for transport, mapping, translation and transform of messages;
* Hands-on experience creating/editing XML schemas using W3C XML Schema and DTDs;
* Strong working knowledge of n-tier Web-based technologies, systems architecture and Web, App and Database servers;
* Working knowledge of Electronic Health Records, and EMR/HIE systems
* Experience working with SQL Server and Oracle databases;
* Familiarity with common operating system and network protocols and services (TCP/IP, HTTP, JDBC/SQL), and security policies
* Excellent abilities to quickly learn, retain and follow state & federal mandates, guidelines and standards;
* Proficiency in using MS-Office tools including MS-Visio, Project and PowerPoint;
* Excellent multi-tasking, organizational, communication and interpersonal skills;
1. **ADMINISTRATIVE CONSIDERATIONS**

**Deliverables:** The descriptions under “Specific Services” form a guide to the anticipated work, as it is currently envisioned. These tasks may be adjusted, reduced or expanded as the project progresses through various phases. The contract employee shall be expected to maintain and provide written documentation on any work performed in conjunction with this engagement. The contract employee shall also provide training and mentoring to DPH staff in the specific changes as implemented in the immunization registry system.

**Work Schedule:** This work is planned from January 17, 2017 through December 30, 2017. DPH reserves the right to extend the contract term, if deemed necessary, to support additional functionality, however that decision will not be made until near the end of the initial engagement. All work will be performed in eight (8) hour shifts, 5 days per week, between 8:00 AM and 5:00 PM on normal scheduled business days (Monday to Friday), excluding State holidays and furlough days. Payment will be on a time and material basis and paid only for hours worked.

**State Resources and Oversight:** The Connecticut Department of Public Health will provide support and guidance to the selected consultant. The consultant shall discuss and coordinate workload and job scheduling priorities and task assignments with the designated Project Manager or designee.

The contractor will have dedicated office space and DPH will provide all computer hardware and software for this project.

**Security/Privacy Considerations:** Information accessible by the contractor employees may be sensitive, confidential or subject to the Privacy Act and/or HIPAA considerations. Contractor personnel must be familiar with and comply with the provisions of appropriate regulations and/or instructions. Signing of a confidentiality agreement will be required. Daily sign-in to the facility will be required. The display of an access badge will be required at all times that the contractor employee is present in the facility.

**General/Miscellaneous:** The IT management may request the termination of any agreement resulting from this solicitation, after adequate notice, in the event that contractor performance is or becomes inadequate to support the requirements of this initiative.

# IT Point of Contact:

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