SystemsMadeSimple
A LEIDOS COMPANY
8521 Leesburg Pike, Suite 600, Vienna, VA 22182

Date: July 27, 2017

Attention: Ms. Carolyn Carbone, Contracting Officer, Carolyn.Cabone@va.gov
Ms. Susan Banasiak, Contract Specialist, Susan.Banasiak@va.gov

Reference: VistA Adaptive Maintenance (VAM)
T4NG-0250 TAC-17-42242

Dear Ms. Carbone and Ms. Banasiak:

Systems Made Simple (SMS), a Leidos Innovations Corporation (Leidos Innovations) company is pleased to submit this response to the referenced Request for Information (RFI) under the Transformation Twenty-One Total Technology Next Generation (T4NG) Program, Contract No. VA118-16-D-1004. On August 16, 2016, a subsidiary of Leidos Holdings, Inc. merged with the entirety of Lockheed Martin Corporation's Information Systems & Global Solutions (IS&GS) business, resulting in Leidos Innovations (the "Transaction"). In connection with that Transaction, Systems Made Simple, Inc. (CAGE Code 1U3R1), which was formerly part of Lockheed's Martin IS&GS business, was acquired in its entirety by Leidos Innovations. Besides the change in ownership, there were no changes to SMS as a result of the Transaction.

SMS thoroughly reviewed all elements of the RFI and Draft Performance Work Statement (PWS). We look forward to detailing the benefits of our approach in response to a competitive solicitation.

The point of contact for any questions related to our RFI response is:

Ms. Lindsay Mercer-Penner
Contracts Negotiator, Sr.
E-mail: Lindsay.Mercer@leidos.com
Phone: 703-663-3690

Sincerely,

Lindsay Mercer-Penner

Lindsay Mercer-Penner
Contracts Negotiator, Sr.

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INTRODUCTION

SMS/Leidos has been privileged to serve the Department of Veterans Affairs (VA) as a solutions provider for more than 20 years, delivering mature program management, systems integration, agile development, release management, and cybersecurity support. We assist the VA in a variety of capacities ranging from project control, system management, and enterprise architecture execution to software development, enhancement, and maintenance. SMS brings extensive experience supporting VA enhancement and sustainment support services for VistA clinical and administrative applications. These projects include VistA API Exposure 2.0 Service-Oriented Architecture (SOA) Support Services; VistA Evolution and Interoperability Planning; VA Repositories; James A. Lovell Federal Health Care Center (JAL FHCC); VistA Access Enhancements; VistA Lab Enhancements/AP Order Dialog and Microbiology; Pharmacy Reengineering; VistA Blood Establishment Computer Software (VBECS); and VistA Intake/ Remediation Support.

SMS will minimize risks associated with the scope of work defined in the PWS by applying our wide-ranging knowledge of VA systems, data, interfaces, data interdependencies, tools, and cybersecurity requirements to deliver effective planning, stakeholder collaboration, cyber security, agile development, and interface services for the VistA Adaptive Management project. The following sections describe SMS/Leidos projects relevant to VA's requirement to develop a service layer that will surface specific VistA/CPRS clinical function and business logic and emulate an industry-standard, model-driven, secure service interface with no legacy MUMPS code dependencies while providing backwards and forwards compatibility for CPRS and VistA.

1 TECHNICAL CAPABILITY AND RELEVANT EXPERIENCE PERTAINING TO THE ISOLATION OF CPRS FROM VISTA MUMPS

SMS offers the following examples of VA projects and one technology capability that demonstrate our technical capability to deliver effective, efficient VistA Adaptive Maintenance (VAM) services, specifically isolation of CPRS from VistA MUMPS applications.

JAL FHCC Orders Portability. Our ongoing VA work includes 9 years of JAL FHCC new development, enhancement, and sustainment services, providing systems analysis, design, code development, performance tuning, testing, and deployment. At JAL FHCC, Leidos developed and integrated the suite of interoperability applications that support Orders Portability (Laboratory, Consults, and Radiology), Single Patient Registration, Financial Management, and the VA SOA/Enterprise Service Bus (ESB) infrastructure that enables the VA and Department of Defense (DoD) to exchange orders between the their disparate MUMPS-based electronic health record (EHR) systems at the joint medical facility. This infrastructure has proven to be a critical component for achieving near real-time data exchange between DoD and VA, while enhancing operational efficiency at JAL FHCC.

SMS/Leidos is a key contributor to the evolution of today's JAL FHCC functionality, beginning with medical single sign-on and single patient registration in 2010; laboratory, radiology, and consults orders portability completed in 2012; transition to and first successful implementation of the VA Electronic Service Bus (ESB) in 2015; and daily, continuous application and infrastructure sustainment for JAL FHCC today. We contribute to maintaining the modernized SOA using VA's Joint Legacy Viewer (JLV) and integrating/operating effectively with the ESB. Our experience

demonstrates an active, successful collaboration conducted with VA and DoD stakeholders to establish and maintain "real life EHR interoperability" until the future of a single EHR is realized.

Currently the JAL FHCC working application delivers a 99% data exchange success rate when transferring different types of data between CPRS/VistA and AHLTA/CHCS at JAL FHCC. Our current application sends data from CPRS to the DoD EHRs and was developed without using or modifying any legacy MUMPS code. This is accomplished using unique protocols, HL7 Logical links and a generic HL7 message generator. Once these generic HL7 messages are created, our process allows us to modify all of these messages to satisfy the business requirements of the receiving EHR. Our application also has a Java script based unique receiver which is capable of changing not only the HL7 version but also converting the message to XML format which most outside applications can read. Another working part of our application is the ESB. This application is capable of storing, queueing, mapping and directing the incoming or outgoing messages to the appropriate recipient.

After successfully creating and sustaining this unique application that transfers CPRS actions to an outside recipient and receives the same from an outside source, we have the necessary resources and knowledge base to effectively support the creation of a similar process that will send and receive data from the newly created VICS. To support this effort, we also have experience maintaining three unique development and SQA environments cloned from a production system that we can use for our development. These existing environments enhance SMS/Leidos' ability to provide Regression Test Suite to cover all CPRS vital interactions and configuration of a VistA Test System (production clone) to validate interfaces to Vitals VICS.

Our team of developers supporting JAL FHCC has the following combined technical expertise:

- 15 years developing and enhancing VistA Outpatient pharmacy
- 20 years working with HL7 message transfer
- 15 years development using Java script

Health Data Repository. The VA Repositories project, specifically the Health Data Repository (HDR), offers a second project demonstrating our capabilities and experience related to this effort. HDR was originally established to achieve VistA independence and includes SOAP, REST and HL7 Messaging services that together support the capability to store and retrieve data from HDR. VistA and CHDR applications currently synchronize VA and DoD Vitals, Allergy, Outpatient Medications and Lab (Chemistry/Hematology) data with HDR. HDR together with its services can be operated independently of VistA once VistA support for these data domains is turned off. In order to achieve this functionality that is already available in VistA through HDR and its services, the Leidos team developed longitudinal data maps to map VistA and DoD data to a logical data model that is realized in HDR schemas. SOAP and REST services that support data storage and retrieval were then added atop the HDR database. Using HWSC utilities, CPRS was modified to support drug-drug and drug-allergy interactions during order checks. Over the last year, One-VA Pharmacy supports prescription refills from any pharmacy in VA irrespective of the origination order location through CPRS integrated with HDR services. HDR supports HL7, XML and JSON payloads. CPRS interactions for data storage can continue to use HL7 to store data in HDR instead of VistA without any modifications through the HL7 Messaging interface on HDR.

Seamless Ordering for Transplant Patients. SMS/Leidos was tasked with creating an application that would allow Transplant facilities (HUB sites) the ability to order tests using CPRS that would

be needed once the patient was released from the HUB and sent home where they would receive care from their home facility (SPOKE). We made modifications to CPRS that allow a HUB to place orders in their facility and those orders would be immediately be sent to a SPOKE so that once the patient was released the HUB provider could track the results of these tests. The changes we made to CPRS did not affect any of the existing functionality of CPRS or VistA at the HUB or SPOKE facilities. Once the patient was being cared for at the SPOKE, any action taken in CPRS on those orders at the SPOKE would be sent back to the HUB in real time and stored in VistA so that the original provider could track the patient's progress without seeing them in person.

To support this project, we did not modify any legacy MUMPS code or change any legacy processes at either the HUB or SPOKE. We used a series of new protocols, HL7 logical links, HL7 messaging and specific namespace routines to accomplish this process and made it complete transparent to the existing functionality of either facility.

Node.js Capabilities. Node.js will be used to develop and deliver Node.js Package Manager (NPM-packaged) REST services that can be accessed by CPRS. CPRS will then need to be configured to disable VistA data calls and enable the REST services created with Node.js, freeing up CPRS dependency on VistA for EHR specific data. SMS/Leidos capabilities include node.js expertise. We created the initial prototypes for the Medical Care Collection Fund (MCCF) Electronic Data Interchange (EDI) modernization package using Node.js and delivered that code to the development contractors. Our team established the use of the MEAN stack path for MCCF.

2 CORPORATE EXPERIENCE PERFORMING THESE SERVICES

SMS/Leidos has experience performing these services for multiple projects similar to the Veteran Integrated Care Services (VICS) service layer envisioned by the draft PWS. We offer the following references to demonstrate our corporate experience for the projects described in section 1.

Project Title	James A. Lovell Federal Health Care Center (JAL FHCC)
Agency	Department of Veterans Affairs Office of Information Technology
POC COR	Angela Blackshaw, Angela.Blackshaw@va.gov, 727-502-1347
POC CO	Sharon Fernandes, Sharon.Fernandes@va.gov, 732-440-9670
Dollar Value	$4,502,859.70
Contract Number	VA118-11-D-1012 / VA118-1012-0019

Project Title	VA Repositories
Agency	Department of Veterans Affairs Office of Information Technology
POC COR	Baron Woods, Baron.Woods@va.gov, 510-691-8544
POC CO	Carolyn Carbone, Carolyn.Carbone@va.gov, 732-440-9742
Dollar Value	$29,125,796.08
Contract Number	VA118-16-D-1004 / VA11816F10040005

Project Title	Seamless Ordering for Transplant Patients
Agency	Veterans Health Administration Innovation Program / Veterans Affairs Center for Innovation
POC COR	Allison Amrhein, Allison.Amrhein@va.gov, 202-509-3678
POC CO	Summer Spalliero, Summer.Spalliero@va.gov, 732-440-9609
Dollar Value	$1,646,831.87
Contract Number	VA118-11-D-1012 / VA118-1012-0031

3 ABILITY TO MEET SET-ASIDE REQUIREMENTS

Since SMS is classified as a Large Business under T4NG, the 50% SDVOSB/VOSB requirement presented in the RFI is not applicable. Leidos has a well-earned reputation for being a mentor to small businesses and supports all T4 Task Orders with small-business subcontractors including SDVOSB, VOSB, WOSB, and HubZone. We will include small business partners on this task order to meet our T4NG veteran-owned and other small business goals.

4 HAS THE DRAFT PWS PROVIDED SUFFICIENT DETAIL TO DESCRIBE THE TECHNICAL REQUIREMENTS THAT ENCOMPASS THE REQUIREMENTS SPECIFIED IN THE DRAFT PWS.

_____ YES ___X____ NO (if No, answer question c)

If “NO”, please provide your technical comments/recommendations on elements of the draft PWS that may contribute to a more accurate proposal submission and efficient, cost effective effort.

Question No.	PWS Section	Question/Comment/Suggestion
1	PWS 1.0	The background section states “VA Adaptive Maintenance project will surface specific VistA/CPRS clinical function and business logic, and emulate with an industry-standard, model-driven, secure service interface with no legacy MUMPS code dependencies while keeping CPRS operational (supporting both backwards and forwards compatibility).” Please clarify what development language satisfies the requirement for “an industry-standard, model-driven interface”. Specifically, would MUMPS/Cache be considered as long as the MUMPS code does not reside in Legacy VistA?
2	PWS 3.0	The scope requires “The Contractor shall provide services including manage, plan, develop, design, integrate, test, and deploy patches that provide the adaptive maintenance required for the selected VistA components such that the net result provides both backwards- and forwards-compatibility with other VistA and commercial products.” Please clarify. Although the requirement clearly states “no legacy MUMPS dependencies”, will VistA patches be required for implementation?
3	PWS 3.0	Will the vendor be responsible for modifications to CPRS to implement VICS?