

## **STATEMENT OF WORK**

### **Image Vault and EchoPAC upgrade**

**Planning UID: VA-18-00061165**

**Funding UID: 534-18-3-2715-0400**

**Ralph H. Johnson VA Medical Center, Charleston SC**

#### **A. PURPOSE**

The purpose is to procure a fully interoperable echocardiogram system for the Cardiology clinic at Ralph H. Johnson VA Medical Center located at 109 Bee St., Charleston, SC and the Cardiology clinic located at the RHJVAMC's Savannah CBOC. The system must interface with the RHJVAMC's electronic medical record, PACS, cardiac ultrasounds, and echocardiogram software to enable bi-directional DICOM capabilities, stored data to PACS, operation from data stored to the VistA CPRS system via an HL7 report loop, and auto archiving into VistA LTS. The Contractor shall provide all necessary tools, interfaces, equipment/hardware, software, licenses, delivery, installation, warranty, and training.

#### **B. BACKGROUND**

The Cardiology Clinic at RHJVAMC and the Savannah CBOC rely heavily on the GE software and hardware in their echocardiogram suites to perform their daily clinical workflows and treat patients. Currently, the echocardiogram systems at RHJVAMC and its Savannah CBOC are far past their end of life. The Image Vault server has not been updated since 2006 and the system is no longer supported by GE. The EchoPAC software has not been updated since 2007. The systems have limited capabilities in that they are not backwards compatible with the DICOM images, do not upload directly to VistA CPRS, and do not populate the TIU. Because of this, the clinical workflow is very time intensive and opens vulnerabilities for errors. An example of this is that charts are filled out through a manual copy/paste from the study, which has resulted in 5 adverse patient events over an 8-month period from incorrect patient information. In order to avoid this risk to Patient Safety and expedite the clinic workflows, an integrated and automated echocardiogram system must be implemented.

RHJVAMC's HTM department is requesting, on behalf of Cardiology, an upgraded echocardiogram suite system to ensure efficient workflows, accuracy of patient records, and comprehensive data storage. Cardiology service requires a solution to this need in the form of Image Vault data being migrated over into its replacement server – Viewpoint 6 –, the EchoPAC software being updated, and new hardware installed in the workstations that can process these systems. This service requires an echocardiogram system to store and access raw data from the existing Vivid cardiac ultrasounds. This equipment will provide better access to care for the Veterans, mitigate the existing patient safety vulnerabilities, and allow us to meet quality of care measures per VA directives.

#### **C. PERFORMANCE PERIOD**

Work at the Government site shall not take place on Federal holidays unless directed by the Contracting Officer (CO). Contractor may work outside normal business hours as mentioned in the quotation. Any additional charges beyond the quoted amount must have prior approval by the CO/COR. Performance Period expected to be end of FY18 Q3, starting at an estimated June 01, 2018 and lasting 5 days for vendor to complete installation and training.

#### **D. TYPE OF CONTRACT**

Firm-Fixed Price

#### **E. SCOPE**

Contractor must supply, install, and train staff on the use of the new echocardiogram system, including the user interface and added features of the Viewpoint 6 server and the new EchoPAC software, at the RHJVAMC as well as its Savannah CBOC.

a. As per the Brand Name J&A, the suggested OEM is GE Healthcare. The items preferred are Viewpoint 6 Server Version 6.9 **OR EQUAL**, and EchoPAC Suite version 202 **OR EQUAL**.

b. All products must meet all salient characteristics defined in Section F.

The contractor shall provide on-site installation, staff training, and unlimited phone support throughout the upgrade process. The process may vary depending on specific needs of the RHJVAMC, but shall include the following at a minimum:

- i. The contractor will provide the EchoPAC software on a CD/DVD or another agreed upon media method by the vendor and VA. A copy of the software will be archived by the VA.
- ii. Designated VA HTM/IT staff will build the virtual server for Viewpoint 6.
- iii. Designated VA HTM/IT staff will install the application on a Windows Server 2016 virtual server.
- iv. The server and associated Vista elements shall be configured in accordance to VA requirements.
- v. An isolated test patient run will be performed to verify successful data transfer.
- vi. Upon successful testing, the application will be implemented for full operation.

The summary of Data flow and Installation process are as follows:

#### Data Flow Summary:

1. The facility provides a live orders feed to the inbound HL7 interface on the ViewPoint server.
2. The ViewPoint will parse the ADT information from the order.
3. The Vivid devices query the DICOM modality work list (DMWL) from the ViewPoint server.
4. Once the study is completed at the Vivid, the study is exported to the ViewPoint server.
5. Interpretation of the study resident on the ViewPoint occurs via the ViewPoint EchoPac workstation.
6. The ViewPoint EchoPac workstation generated report is electronically signed at the workstation.
7. That report is translated to HL7 plain text and exported to the facility EMR via the outbound HL7 interface.
8. A copy of the ViewPoint EchoPac workstation report can be exported in PDF format as an option, if desired.
9. The ViewPoint server auto archives copies of the studies to a facility provided long term storage.

#### Installation Process Summary:

##### Phase 1

1. The facility provides network ready PCs for the ViewPoint EchoPac workstations and a server configured per GE CVUS hardware specifications documents.
2. GE CVUS USIT remotely installs the new ViewPoint software on the server.
3. GE CVUS USIT remotely migrates the Image Vault DB file to the ViewPoint server.
4. GE CVUS USIT installs ViewPoint EchoPac workstation software on facility provided PCs.
5. GE CVUS USIT configures the Vivids to the ViewPoint server.
6. GE CVUS configures the ViewPoint to archive Vivid raw data to a facility provided long term storage.

##### Phase 2

1. GE CVUS USIT works with the facility IS and/or EMR vendor to implement the HL7 interface.
2. The HL7 interface resides on the ViewPoint server.
3. GE CVUS conducts clinical application training for all designated staff.

The contractor shall conduct a coordination call to help identify any variation needed. The coordination call shall be conducted within 14 calendar days of the contract award, as scheduled by the RHJ VAMC Healthcare Technology Management Service and contractor. If there are no foreseen delays, the upgrade process shall be scheduled to begin within 30 calendar days after the coordination call.

#### **F. SPECIFICATIONS AND SALIENT CHARACTERISTICS**

1. The system will provide echocardiogram exam and testing data viewing stations for exam room and staff workstation
2. Single Server Configuration @ Main Site – Cache Server & CBOC
3. Support integrated review of multiple echo studies by a provider to facilitate treatment decision making
4. The echocardiogram system will integrate, save, and upload test and examination data from all sites and equipment.
5. The equipment shall be compatible with the equipment, infrastructure, and supplies already in use at the RHJVAMC and Savannah outpatient clinic.

New functionality requirements for upgraded Echocardiogram Suite System:

- Auto archive copies of the CVUS studies to the facility long term storage

- Auto electronic transfer of ViewPoint EchoPAC workstation generated reports via HL7 interface to the facility electronic medical record (EMR)
- Auto transfer of ViewPoint/EchoPac workstation generated reports in PDF format to the EMR via the HL7 interface or as an export to a facility network shared folder, if desired
- Data mining, or analytics, to provide seamless queries in CDW and SQL for statistics necessary for ICAEL/ICAVL certifications and other needs
- EchoPac dongles are no longer required
- EchoPac upgrades are included with an active service maintenance agreement.
- Microsoft Server 2016 and 2016 OS support
- Virtual server support
- Radiology, MFM, and OB/GYN ultrasound support can be added, if desired.

#### **G. SYSTEM REQUIREMENTS**

Contractor shall provide a projected schedule in terms of days from the time of award addressing (at a minimum) the following milestones: verification that all system quantities and configurations are accurate; manufacture/assembly of all parts and/or equipment; delivery to identified location; and complete installation of hardware.

Recommendations for the PC hardware specifications:

##### **EchoPac 202 HW specifications:**

- i5 processor
- 16 GB RAM or greater
- 1 TB HD, 500 GB minimum
- Nvidia graphics card, models listed in the attached document or any other model that meets the following parameters:
  - Shader 4.0 or greater
  - Directx 11 or greater
  - CUDA 2.3 or greater
  - 4 GB VRAM or greater
- Minimum 2 USB ports
- CD/DVD drive/burner
- (2) color monitors screen resolution minimum 32 bit, 1024 x 768 and maximum 1920 x 1200
- Windows 7 (32/64 bit) Professional: Windows 8 (32/64 bit) Professional and Enterprise and Windows 10 (64 bit) Professional and Enterprise

My recommendations for server specifications:

- Dual octocore 2.5 GHz or greater processors
- 16 GB RAM or greater
- 5 TBs or greater of STS

#### **H. TRAINING**

1. Contractor shall provide comprehensive training on the use of the equipment for the operating clinicians. This training program shall include at the minimum the following: (i) Technical Training, (ii) Operational Training, and (iii) Hardware and Software Trouble-shooting. Training shall occur onsite during normal business hours, 8:00am-4:30pm, Monday through Friday. Competency assessments shall be provided with the training.
2. Contractor shall provide technical training for two biomedical engineering personnel. The cost for this training and all training related expenses such as travel, lodging, and other expenses are included in the contract price. This training shall cover the preventative maintenance, troubleshooting, and general maintenance of the equipment. Training shall allow for

classroom instruction as well as individual hands on programming, troubleshooting and diagnostics exercises. Competency assessments shall be provided with the training.

**I. TESTING AND CERTIFICATION**

Upon installation of each piece of equipment in the system, the Contractor shall notify the COR in writing that the system is ready for acceptance testing, and that it meets all requirements as specified. Upon receipt of this notification, RHJVAMC ophthalmic staff will perform the acceptance testing within two (2) business days. Submission of this notification of system readiness shall be accomplished by the contractor prior to the beginning of the scheduled Government Acceptance Test.

**J. GOVERNMENT ACCEPTANCE TEST**

Contractor shall perform the Government Acceptance Test in the presence of the COR and designated Cardiology Staff for proof-of-performance. Upon completing the Government Acceptance Test successfully, Contractor shall document the success of this Government Acceptance Test on Contractor's company form which will be certified by the COR's signature as an evidence of Government Acceptance of the referenced piece of equipment. A copy of this document shall be furnished to the COR and the Contracting Officer before Contractor's Representative at the end of each testing.

**K. INSTALLATION**

1. Contractor shall provide all labor, materials, tools, equipment, etc. to prepare for the installation of the equipment at the RHJVAMC and the named community VA clinics.
2. Contractor will install all equipment and ensure that it is fully operational. Status will be verified by HTM
3. All employees of general contractor and subcontractors shall comply with the RHJVAMC policy on Healthcare Industry Representatives, including, but not limited to, vendor credentialing, check-in procedures when at the facility, and display of name badges.
4. Contractor shall be responsible for removing all packing materials and related waste and dispose of offsite.

**L. EVALUATION CRITERIA**

1. Technical Capability
  - a) Image Quality
  - b) System Speed and Reliability
  - c) Integrated Data Functions
  - d) Patient Safety features
  - e) Integration with existing ophthalmic surgery equipment, infrastructure and supplies
2. Past Performance
3. Proximity of service personnel
4. Warranty

**M. CHANGES TO STATEMENT OF WORK**

Any changes to this SOW shall be authorized and approved only through written correspondence from the CO. A copy of each change will be kept in a project folder along with all other products of the project. Costs incurred by the contractor through the actions of parties other than the CO shall be borne by the contractor.

**N. CONTRACTOR EXPERIENCE REQUIREMENTS**

**KEY PERSONNEL**

Key personnel will be identified in the proposal and shall be considered key personnel essential for the successful completion of the work performed under the contract. The contractor agrees that such personnel shall not be removed, diverted or replaced from the work without prior written approval of the Contracting Officer. The contractor shall submit

written notice of proposed personnel changes to the Contracting Officer for approval at least thirty (30) business days in advance.

#### WORK HOURS

The services covered by this contract shall be furnished by the contractor as defined herein. The contractor shall not be required, except in case of emergency, to furnish such services on a Federal Holiday or during off duty hours as described below.

The following terms have the following meanings:

(1) Normal working hours: Monday through Friday, 8:00 a.m. – 4:30 p.m., excluding federal holidays.

(2) Federal Holidays: The 10 holidays observed by the Federal Government are:

New Year's Day	Martin Luther King's Day	President's Day	Memorial Day
Independence Day	Labor Day	Columbus Day	Veterans Day
Thanksgiving Day	Christmas Day		

Any other day specifically declared by the President of the United States to be a federal holiday. When one of the holidays falls on Sunday, the following Monday shall be observed as a Federal Holiday. When a holiday falls on a Saturday, the preceding Friday shall be observed as a Federal Holiday.

#### NOTE

Payment of invoices may be delayed if the requirements are not properly completed or communicated with the Healthcare Technology Management Service as required above.

#### CONTRACTOR STATUS

The contractor must have an "Active" Status in the System for Award Management ([www.sam.gov](http://www.sam.gov)). The contractor must have an established business, with an office and full-time staff. If subcontractors are used, the CO must approve them in advance.

#### **O. REPORTING**

The field service engineer shall report to the HTM service at Ralph H. Johnson VA Medical Center in Charleston, SC. A service report and invoice shall be provided at the completion of the work.