Equipment Specifications
Digital Radiography
VISN 01/Manchester VA Medical Center
608-B93006

A. REQUIREMENT OVERVIEW

The Manchester VA Medical Center is requesting one Digital Diagnostic X-ray room for the Radiology Department to replace the current one that has reached end of life. The system will be used for all general X-ray studies and will be connected to our Carestream PACs system.

Facility	Quantity
VAMC Manchester, NH	1

B. TECHNICAL REQUIREMENTS

1. System configuration

☒	a. Fixed wall digital detector
☒	b. Fixed table digital detector
☒	c. Wireless digital detector

2. Unit physical specifications

a. Minimum generator output power [kW]	80kW
b. Minimum number of generator phases	3
c. Minimum generator voltage range [kV]	40-150 kV
d. Maximum radiographic mA exposure @ 100 kVp	800mA
e. Minimum fixed detector size [in x in]	14x17
f. Minimum wireless detector size [in x in]	14x17
g. Maximum wireless detector weight with battery installed [lbs]	4 lbs
h. Maximum 2nd wireless detector size [in x in]	10x12
i. Maximum 2nd wireless detector weight [lbs]	4 lbs
j. Minimum spatial resolution [lp/mm]	3 lp/mm
k. Maximum pixel size [µm]	200 µm
l. Maximum time for image display [s]	1s
m. Maximum table patient weight limit [lbs]	750lbs
n. Minimum table height from floor [in]	20”
o. Bucky tilt range [deg]	-20 - +20 degrees

3. Additional specifications

☒	a. High-frequency generator with automatic dose rate control	
☒	b. Flat-panel wireless detector	
☒	c. Protective weight-bearing cover for wireless detector	
☒	d. Charging station for wireless detector (as required by vendor)	
☒	e. Grid attachments for wireless detector (as required by vendor)	
☒	f. Table holder for wireless detector	
☒	g. Mobile holder for wireless detector	
☒	h. Tube mount	◉ Overhead ○ Floor-mounted
☒	i. Bucky tracking for the table and wall stand	
☒	j. In-room protocol adjustment via tube head or other in-room mounted system	
☒	k. Ability to change between tabletop, upright bucky, or table bucky from tube head	
☒	l. Post-processing image enhancement for lines, soft tissue, etc.	
☒	m. Foot controls on each side of table	

4. Workstation Requirements

☒	a. Minimum number of acquisition workstations	1
☒	b. Minimum number processing workstations	1
☒	c. LCD touchscreen acquisition workstation monitor	
☒	d. UPS for x-ray control/image recovery to bring the workstation down safely	
☒	e. Ability to send images directly from the control panel (no separate workstation required)	

5. Software Requirements

☒	a. Ability to apply multiple image processing algorithms both pre- and post-acquisition to allow for soft tissue and/or bone enhancement
☒	b. Dose monitoring – the system must be able to supply a technology that allows for monitoring and tracking of radiation dose provided to a patient
☒	c. Dose reduction – the system must have systems in place to facilitate regular protocol optimization and reduced radiation dose to the patient
☒	d. Repeat rate – ability to track repeat/retake data to include such items as technologist (required unique identifier), reason for repeat, patient dose, exam type, etc. The data should be exportable to Excel or other databases for tracking, trending,

	and combining with data from other imaging sources within the facility.
☒	e. Security – ability to protect sensitive patient data using unique user authentication

6. Security/Connectivity Requirements

☒	a. OEM-supported operating system
☒	b. Latest DICOM print, store, commit, radiation dose structured report (RDSR), and modality worklist
☒	c. Encrypted hard drive
☒	d. PACS compatibility – Philips (Carestream) PACS

7. Added Value

Specifications listed below are not required, but preferred. Vendors who do not include the below specifications in the submitted offer will not be docked or excluded from consideration. Specifications listed below will be evaluated based on added value.

☒	a. Additional year(s) of warranty
☒	b. Post-warranty remote diagnostic service program

C. TRAINING REQUIREMENTS

1. Clinical Training

☒	a. On-site clinical applications training for 8 technologists during go-live
☒	b. On-site follow-up clinical applications training for 8 technologists once technologists have hands-on experience with the system
☒	c. Technologists who complete the clinical applications training shall receive continuing education credits (CMEs).

2. Biomedical Technician Training

Please reference the "Instructions to Offers" section 2.8.g for further information about the type of information to provide by equipment type not by specific request. Please also reference the "Instructions to Offers" section 7.3.3. for response format.

Technical training information to include detailed information about the curriculum and length of the biomedical technical training required for each equipment type.

Although the NAC will not award this training along with the equipment, it is imperative that the customer is informed that this training is available. Vendors must demonstrate that they can provide any required off-site training, therefore off-site training should be quoted as an optional item. Off-site training will be

purchased at the time of need via a modification (if the original order remains open) or via a separate order. No travel expenses for any VA employees will be included in any HTME equipment or training order.

D. SERVICE REQUIREMENTS

1. VPN/Remote Access – The vendor shall provide any and all equipment service programs, such as remote diagnostics, during the warranty period. The vendor shall provide post-warranty remote diagnostic service program as an "Add Option" with the offer. The system shall provide vendor remote diagnostics via VPN. The vendor shall either utilize the VA national site-to-site VPN or work with the Office of Cyber and Information Security and the VAMC Information Systems Security Officer to establish a client-based VPN.
2. Service and Operator Manuals – The vendor shall provide the following documentation for the proposed systems:
    a. Two (2) copies of operator instruction manuals (one (1) electronic and one (1) physical copy)
    b. Two (2) copies of a service manuals (one (1) electronic and one (1) physical copy)
    *Vendors can include the physical copy as a priced line item in their quote as applicable.
3. Minimum Warranty – The system and accessories shall be covered under the manufacturer's warranty and shall include all parts and labor for one year following acceptance by the VAMC. This warranty must include PMs as required by the manufacturer. The manufacturer's factory-trained field service representatives shall perform installation and maintenance during the warranty period.

Vendors are encouraged to include any offerings for service, warranty, and training that may exceed the minimum requirements, to include information on their service support structure during and after the warranty period. Vendors who do not include any added value offerings for service, warranty, and training will not be docked or excluded from consideration. However, any such offerings will be evaluated based on added value.

E. OTHER INFORMATION/DOCUMENTATION REQUESTED

Please reference the "Instructions to Offers" section 2.8a-h for further information about the type of information to provide by equipment type not by specific request. Please also reference the "Instructions to Offers" section 7.3.3. for response format.

1. Completed pre-procurement assessment form (6550 Appendix A)
2. Completed Manufacture Disclosure Statement for Medical Device Security (MDS2) form
3. Federal Information Processing Standard (FIPS) 140-2 certification
4. Product brochures
5. Technical specification sheets, to include dimensions and weight of the system
6. Typical drawings (pdf version of the CAD drawings)
7. Technical training- Biomedical: information to include detailed information about the curriculum and length of the biomedical technical training required for each equipment type.
    - Although the NAC will not award this training along with the equipment, it is imperative that the customer is informed that this training is available. Vendors must demonstrate that they can provide any required off-site training, therefore off-site training should be quoted as an optional item. Off-site training will be purchased at the time of need via a modification (if the original order remains open) or via a separate order. No travel expenses for any VA employees will be included in any HTME equipment or training order.
8. Support information to include your company's support structure during and after the warranty period

- On-line or telephonic applications support and availability (include third party coverage)
- A listing of field service engineer locations and availability
- A listing of part depots

F. TRADE-IN

☒	a. In instances where sanitization of ePHI compromises the OS and/or application software, or requires the removal of internal storage media, the vendor accepts the equipment “as is” and can elect at their own discretion to contract with the original equipment manufacturer (OEM) to restore the system.

The following equipment is available for trade-in. Please reflect any credits provided for trade-in equipment in the proposal.

Station	608
Manufacturer	Philips Medical Systems
Model	Digital Diagnostic
EE/Asset Number	17701
Serial Number	0902030