ALL INDIA INSTITUTE OF MEDICAL SCIENCES
ANSARI NAGAR, NEW DELHI-29.
STORES SECTION (DO)

Ref. No. 32/Stores(DO)/R.D./PAC/2018-19/FSC   **Dated-23/01/2019**

Sub:- Purchase of "**Very High End Ultrasound Machine with real time shear wave elastography on a buy back basis – 02 units**" for the Department of **Radio-diagnosis** at AIIMS, New Delhi-110029, on proprietary basis Inviting comments thereon.

*****

The Institute is in the process to purchase "**Very High End Ultrasound Machine with real time shear wave elastography on a buy back basis – 02 units** at AIIMS, New Delhi from **M/s. Supersonic Imagine, France** through M/s. **Assiz & Sarah Healthcare Pvt. Ltd., New Delhi** The PAC Certifications by M/s. **Supersonic Imagine, France** as well as the user department are attached.

The above documents are being uploaded for open information to submit objections, comments, if any, from any manufacturer regarding proprietary nature of the equipment/item within 15 day from the date of issue/uploading of the notification giving reference No. **32/Stores(DO)/R.D./PAC/2018-19/FSC.** The comments should be received in office of Stores Officer (FSC), Store Section (DO), Animal House Building, Near Biotechnology Building at AIIMS on or before **09/02/2019** upto **12.30 p.m.** failing which it will be presumed that any other vendor is having no comment to offer and case will be decided on merits.

Yours faithfully,

SR. STORES OFFICER (DO)

Encl: Related documents enclosed.

DEPARTMENT OF RADIODIAGNOSIS, AIIMS, NEW DELHI

Technical specifications for RIS-PACS system for the proposed OPD Block

Competitive bids are invited for a comprehensive advanced state of the art USA FDA or CE approved and fully scalable RIS-PACS system in the proposed OPD block, AIIMS. The system should have USA IHE certification and HIPAA compliance. Vendor should propose the latest RIS PACS solution available with them world wide. It should be compatible with existing HIS in the hospital and Open source PACS running on Linux platform.

The proposed system should be the state of the art solution and should be a fully scalable solution. Any future upgrade or integration with the other RIS-PACS system in the hospital should be possible. System should conform to latest DICOM and HL7 standards as per existing Govt. of India rules. It should be compatible with all the standard modalities, PACS and imaging entities currently in the institute and also with those added in the future. The system should allow high speed transmission and viewing of data with adequate security measures against viruses, unauthorized access, and encryption to prevent misuse. The PACS system should comply with VNA standards allowing storage, retrieval and viewing of all kind of medical images such as imaging, pathology, echo, ophthalmology, clinical photographs etc.

The company should be a registered entity in India for a minimum of 10 years and the bidders should have registered their IHE Integration statement with IHE.net. Further, the RIS and PACS systems being supplied, should have implemented all transactions required in the IHE Technical Framework to support the IHE Integration Profiles, Actors as listed below with proof of their successful testing at an IHE connectathon not earlier than last 2-3 years on the website https://connectathon-results.ihe.net/. The vendor should have at least 10 PACS implementations in a Govt/private teaching hospital with more than 800 beds in India. One full time service Engineer should be made available for during warranty period to ensure uninterrupted service. PACS should support unlimited number of users (radiologist/physicians/ward etc.) and unlimited number of Modalities in the hospital.

The below mentioned specifications of each component of hardware and software are the minimum required. However vendor may quote an equivalent or advanced version that is commercially available or likely to be commercially available at the time of purchase. Further the compatibility of the quoted items with each other and with the existing system if any is an essential requirement.

The primary vendor should take an overall responsibility of both the software and hardware components including all licenses for complete maintenance for time of warranty.

It will be the responsibility of the vendor to demonstrate capabilities/functions quoted to the technical evaluation committee onsite if required. System should have a seamless workflow which means in single click of patient in the reporting module should open a particular patient in the PACS viewer along with all the other studies of the patient. With another click it should open the same patient in advanced visualization system for advanced viewing. There should be a seamless integration between RIS, PACS viewer and the advanced visualisation software so that the entire process should be done with two or

three clicks. We follow a two-step process in reporting cases so the RIS system should be capable of assigning cases to a particular junior radiologist who prepares the report and subsequently to a senior radiologist who finalises the report. The report done by the junior radiologist should mention the status of the report as provisional. There should an option to send the provisional and finalised report to the hospital information system. There should be strong integration between the proposed RIS PACS system and the existing HIS so that the entire process can be tracked from HIS. The communication should comply with HL7 standard. All the necessary software, licenses and hardware if any to fulfil this process should be quoted.

The storage of the proposed PACS system should have usable 75 TB which is scalable in future to 400 TB. Storage to be configured to automatically make two copies of all data in NAS in RAID. It is necessary to create a disaster recovery solution in a different location for the entire data so as to prevent data loss in case of any disaster.

System should have reporting and Web clients. The reporting clients should work in server client model so that the images and necessary reports are available instantly without having to retrieve it. It should be possible to automatically send specific modality reports or specific organ system reports to a particular set of radiologists for finalizing the reports based on the pre-configured rules. All softwares, licenses and hardwares to fulfill all our requirements should be quoted as essential items and it is the responsibility of the vendor to demonstrate the functionality of the same.

The essential specifications of the new RIS-PACS System would be:

A. **Hardware :**
   - Hardware Clustered Servers for both archiving and DOMAIN with 100% redundancy and 99.9% uptime for all DICOM services
   - Details of the necessary Cluster HW for PACS Server, Archive Server, SAN Storage, Dual NAS Storage in RAID, *as per Annexure A*

B. **Software :**
   The software should be capable of having a Clustered high availability failover with a Common online SAN of 5 TB in RAID and archiving DICOM images including the Mammographic images in the NAS Storage. It should support reading (Reporting / Post Processing) and distribution of images and web-based distribution. The system would need to be integrated to the existing HIS seamlessly.

   The Software should provide 2D, 3D, 4D, reading & DSA reading and support DICOM structured report, and support multiple diagnostic monitors.

   It should have data security complying with HIPAA standards.

   Access to the images should be controlled with passwords that are required to be changed after a pre-determined period.

The complete system should have a suitable virus protection for the warranty period and subsequently for the comprehensive maintenance period.

Possibility to compress Image data while storage viz JPEG & JPEG 2000 for loss less & with data loss.

The system should be able to forward Modality Performed Procedure Steps to DICOM AET. Prefetching of Patient Data based on Modality worklist etc.
The system should be capable of showing images on a zero footprint viewer and in mobile devices (Android and iOS)

The system should support unlimited reporting (2D viewing as well as 3D) concurrent users and unlimited WEB Clients. The web clients should cater to the users with in the hospital (like out patient rooms and OT) and outside the hospital.

Other essential features required are:

(i)   Hard copy
- Should support DICOM Film printing on B/W and Color Printers
- Facility to write patient DVD's along with the viewer software and the reports.

(ii)   Image Evaluation
- Patient Folder – Reporting on different examinations of one patient simultaneously.
- Archiving thick & thin slices with a flexibility to define a rule to load for eg. Only "Thick Slices" for viewing by clinicians and "Thin Slices" by Radiologists.
- Measurement on the complete stack of images including angle measurements.
- Measurement of Cardiothoracic ratio.
- Facility for Cross reference i.e. simultaneous marking of a specific spatial location in different series of a study.
- Comments on images
- Continuous Zooming and panning
- Facility of a symbol to identify acute examinations.
- Protecting data of VIP cases.
- To set priority for emergency cases.
- 3D reconstruction and evaluation of CT & MR images, MPR, MIP, Volume rendering – unlimited licences
- Fusion of PET and CT/MRI images
- Viewing of DICOM SR reports – edition & creating DICOM structured reports: BI-RADS reporting for mammography images.
- Automatic Spine labelling – fully automatic labelling of spine without any input from the user.
- Facility to create folders by users to collect and group patients for future viewing
- The system shall support sticky notes function. The sticky notes shall open as popup when a scan is opened.

(iii)   Storage and Archiving of Images
Software should support:
- Short term storage
- Long term storage for DICOM Compatible objects.
- NAS Storage to be configured to automatically make two copies of all data in NAS in RAID
- Audit Trail and Node Authentication / Secure Application

The Archiving software should support storage of 1,00,000 procedures per annum.

The Software should support prefetching of rule based configuration and also giving status of Archive Fill levels in Short Terms Storage. The PACS system should comply with VNA standards (level 5 or higher with documentary proof of implementation) allowing storage, retrieval and viewing of all kind of medical images such as imaging, pathology, echo, ophthalmology, clinical photographs etc. It is necessary to create a disaster recovery solution in a different location for the entire data so as to prevent data loss in case of any disaster.

C)   Radiology Information System.
- Should be integrated with HIS and should communicate using HL7 protocol
- Has to use the hospital UHID as the patient primary ID
- Module for patient registration, examination scheduling and completion
- send worklist to modality specific so that examination can be started with a click without entering patient details in the modality
- Unlimited modalities should be connected and should be able to send worklist to those modalities
- There should be an option to hide reports and those could only be accessed using specific credentials
- Dashboard feature to show the entire workflow in the department at a glance
- Reporting module should have spell and grammar checks
- Search of the stored reports using a keyword.
- Multiple configurable filters should be there to narrow down the search
- Unlimited RIS Reporting Module.
- PACS should have dictation option which could integrate with server client based dictation softwares like Dragon, speechmagic etc
- The system shall support scanning of hardcopy request forms and other documents and attach with a patient.
- Audit Trail and Node Authentication / Secure Application
- Charge Posting - Charge Processor /ADT Patient Registration /Order Filler
- Patient Administration Management - Patient Demographics Consumer (Merge) / Patient Demographics Supplier (Merge) / Patient Encounter Consumer / Patient Encounter Source
- Patient Demographics Query - Patient Demographics Consumer / Patient Demographics Supplier

- Patient Identifier Cross-referencing for MPI - Patient Identity Source / Patient Identifier Cross-reference Consumer
- Cross-Enterprise Document Sharing - Document Source / Document Consumer
- Roaming user profiles, i.e. each user can use any RIS workstation with one's own profile.
- RIS records changes of the exam, change history as well as the time course is documented.
- Appointment logging available. Date/time, creator of the appointment as well as deletion and changing of the appointments is recorded.
- Logging of changes on patient master data possible, search for deleted patients also possible.
- Direct order scheduling from HIS in the RIS scheduler possible, a hybrid workflow can also be implemented (e.g. x-ray orders are scheduled directly, CT orders are scheduled manually in the radiology).
- Orders are adaptable and exams can be added/deleted/changed
- Orders can be planned on call without date/time. On call list is automatically forwarded to the next day.
- Cancellation of orders with reason
- Health warnings can be saved for each patient. They are displayed in colour in the examination room and can also be added to the RIS title bar.
- Possibility to automatically find the first free appointment per examination room
- Possibility to change appointment start/end date and time
- Possibility to restrict access to cases on user level
- Possibility to create/change the comment text in appointment
- Possibility to delete/cancel appointments with recording of the reason for cancellation. Deleted appointments can be displayed in the DPC.
- Monitoring of patient waiting time is possible (colour scheme depending on waiting time can be configured for each room individually)
- Display of case relevant data during an examination (insurance, patient history, comment etc.)
- Display of alerts (e.g. CM allergy, AIDS, etc.)
- Possibility to enter case-specific remarks during the examination
- The system shall support sticky notes function. The sticky notes shall open as popup when a scan is opened.
- Facility of a symbol to identify acute examinations
- To set priority for emergency cases.
- RIS reporting module should have grammar and spell check features

D) Miscellaneous

High speed network cabling, switches and connectors are vendors responsibility.

The cost of any additional networking, fibre optic cabling, connectors and data switches required have to be included in the offer.

Complete Antivirus protection for the entire RIS-PACS solution would be the responsibility of the vendor.

Terms & Conditions:

1. The area can be inspected at any time to understand the scope of work before proposing the solution.

2. All the offered features would be required to be demonstrated in the Department, within 2 weeks of the request to be made by the department. It will be the responsibility of the vendor to demonstrate capabilities/functions quoted as well as complete and seamless integration of their solution with the HIS, to the technical evaluation committee onsite.

3. The vendor must certify that the above items quoted by them will comply with all existing industry standards including USFDA or CE, HL7, HIPAA compliance and IHE certification for the latest quoted version for each item.

4. The proposed solution must be fully compatible with existing hospital information system (HIS) in the hospital and capable of seamless integration with the same, for which they must contact the designated person with computer facility, AIIMS. The vendor should demonstrate the full functioning and satisfactory seamless integration of the expanded and enhanced RIS-PACS with the existing system and HIS, onsite.

5. All data sheets for the offered products to be submitted in original. Color printouts are not acceptable.

6. The vendor should certify that the proposed system is 100% compatible with existing HIS.

7. The functioning of entire enhanced system and its integration with existing system and HIS should be completed within 3 months of receiving of hardware, software etc. on site.

8. A trained system administrator should be available from 8 AM to 8 PM, on-site for complete management of installed and proposed expanded solution along with emergency support in non working hours during the warranty period.

9. List of installation (national / international) where a solution similar to that offered and implemented should be submitted.

10. The entire system, including the servers and its various components, networking, switches, all the UPS with batteries, all licenses, workstations, computers, monitors etc should be provided with 5 years comprehensive on site warranty. The uptime should be 99.9% during warranty period. Downtime should not be more than 2 working days per annum. For extra downtime the warranty would be extended by double the exceeding time. Vendor should also quote 5 years comprehensive annual maintenance contract after the expiry of the above period.

11. Onsite availability of application support is to be guaranteed.

12. The hardware specifications appended are indicative. In case additional hardware is required the same should be quoted so that the solution works optimally.

13. All future patches and upgrades should be offered free of cost.

Page 6

Latest HW specification : Cluster PACS Archive Server, online SAN storage, Dual NAS Storage in RAID, Workstations

The hardware modules for this package consist of a 42U rack with servers, domain controller and storage. The long term storage (LTS) t is highly recommended to archive to two different locations as per Department Archive Policy.

A: High availability using VM ware technology HW of Equivalent Specs from DELL/HP or Equivalent
2 x Latest Generation Server CTO Chassis
2 x Six-core E5-2620 or better
256 GB RAM
1 x 2 GB FBWC for P-Series Smart Array
2 x 300 GB 6G SAS 10k RAID1 (C and D drive for OS and application)
1 x 500 GB 6G SAS 7.2k no RAID (E drive for OS backup)
4 x Ethernet 1GbE 4P 331FLR FIO Adapter; iLO Advanced
2 x 81E 8GB SP PCI-e FC HBA
2 x 750W CS Gold Hot Plug Power Supply Kit
For other standards, a regional or country specific power cord option must be ordered.
CD /DVD R /RW Drive
Windows Server 2019 (64Bit) English (US). It should also be compatible with Linux os.
4U (2 x 2U)

B: Domain controller: HW of Equivalent Specs DELL/HP of Equivalent-2 Numbers
1x Latest Generation server CTO Chassis
1x Quad-core E-2609 or better
16 GB RAM
1 x 512MB FBWC for P-Series Smart Array
1 x 2U SFF BB Rail Gen8 Kit
2 x 300 GB 6G SAS 10k RAID1 (C drive for OS)
1 x 500 GB 6G SAS 7.2k no RAID (E drive for OS backup)
4 x 1 GBit/s network interface on board; iLO Advanced
2 x HP 460W Redundant Power Supply Kit w/ Backplane
For other standards, a regional or country specific power cord option must be ordered
CD/DVD R/RW Drive
Windows Server 2019 (64Bit) English (US). It should also be compatible with Linux os.

C: HW for SAN Short term storage STS :Equivalent HW from DELL/HP or Equivalent
1 x FC Dual Cntrl SFF Array
1 x Disk Enclosure
4 x 300 GB 6G SAS 15k RAID10 (SQL database)
4 x 300 GB 6G SAS 15k RAID10 (SQL log)
4 x 1 TB 6G SAS 7.2k RAID5 (SQL backup)
12 x 600GB 6G SAS 10k RAID6 (5.0 TB usable capacity for Images)
2 x 500GB 6G SAS 10k (Hotspare For other standards, a regional or country specific power cord option must be ordered.

D: **Rack (smart rack) and Connector Panels, UPS**
1 x 42U Rack including KVM switch, keyboard and TFT monitor
2 x 32A PDU IEC309 Power Cord
UPS 15KVAx2 for redundant Power supply with 30 Minutes Backup
1 x LAN switch 2910-24G or higher equivalent
10UStandards
The used hardware has to fulfill the normative standards IEC 60950-1 and EN 60950-1.

E: **HW for Workstations -:**
Processor Quad Core or Better
RAM 16 GB
Hard disk 500 GB
Dual Graphics cards(min FX600 1GB) for connecting upto 3 monitor to Workstation
Latest Released Operating systems supplied with system for Server and Workplaces should be offered

F: **2MP high resolution Clinical Dual Head (EIZO/BARCO) & 1MP BARCO Reporting PACS/RIS Monitor –per Workstation—Quantity 10 SETS**

G: **NAS Archive Storage 2x25TB with SAS HDD in RAID with Dual Controllers and high speed connectivity with Cluster Servers connectivity for Dual copy of Archive data in Compressed Format.**

Summary of required Licenses	
Description	**Quantity**
Connectivity to DICOM Modalities	Unlimited
Integration with HIS	1
DICOM Modality Worklists Licenses	Unlimited
Radiologist Workstation Licenses	Unlimited
Viewing Licenses	Unlimited
MIP/MPR Licenses	Unlimited
Film Printing & CD Writing Licenses	Unlimited
Implementation & Training	Required
Comprehensive Maintenance including free updates and upgrades and new software release	Required
Warranty	3-5 Years
Onsite Engineer	During warranty

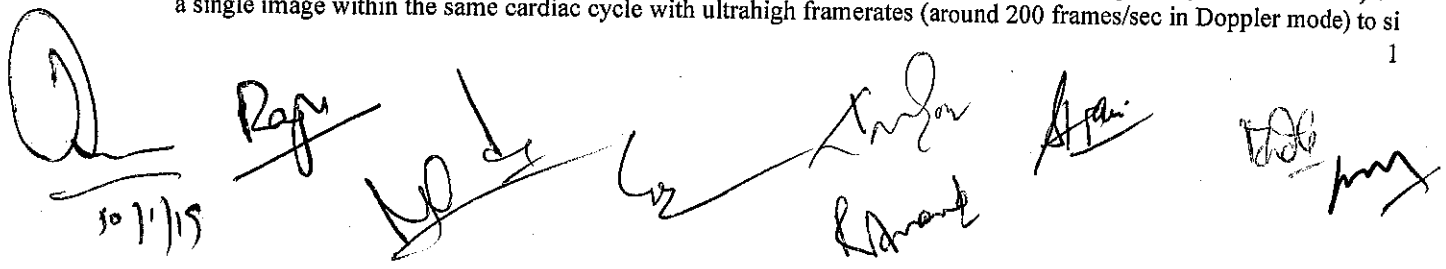## Department of Radiodiagnosis, AIIMS, New Delhi

Technical Specifications for a Very High end Ultrasound machine on PAC basis

With Real time Shear Wave Elastography on a buy back basis (Two units)

One for main department and one for New OPD Block

The system should be state of the art with full digital technology and should be for Abdominal, Renal, Pelvic, Genitourinary, Breast (2D and 3D), Obstetrics, Thyroid, and MSK Imaging Applications. The specific minimum requirements for this equipment are as follows:

1. The system should be capable of high-resolution 2D, 3D, M, PW, Color flow, Power & Directional Power Doppler, Pulse Wave Doppler and Panoramic imaging mode.
2. It should have contrast imaging and real time shear wave elastography modes.
3. The system should have 60000 or more digital processing channels.
4. Transducers should be of broadband technology.
5. The system should have a dynamic range of 180 dB or more.
6. System should offer Imaging depth of 30cms or more.
7. The system should have a frame rate on receive of over 5000 frames per second or more.
8. The system should have advanced color Doppler facility to position at least three spectrograms (online or offline) on a single image within the same cardiac cycle to simplify the workflow and reduce the examination time for Vascular application.
9. System should have Panoramic Imaging with at least 60cm of scanning length. It should have skin line scaling markers, curved distance measurement tool and Zoom, Pan, Rotate & Trim facility to trim panoramic images from start or end of the panoramic capture.
10. System should have integrated ACR BIRADS Lexicon available during the current study and BIRADS results, images and measurements should be fully integrated into the report worksheet for Breast Clinical Application. System should also have Print ready Liver, Obstetric and Vascular worksheets.
11. Machine should be capable of real time Compound imaging technology on linear, curved and mechanical volume probes for improved visualization. The compound imaging should have at least 9 beam steered lines of sight.
12. The system should have Basic Imaging Optimization controls like Tissue Harmonic Imaging, High Definition / General / Frame Rate optimization Control, Penetration / General / Resolution optimization control, Trapezoidal Imaging and Sector Size Control.
13. System should have both manual and Auto Doppler Trace facility on live and frozen images to improve the vascular workflow quantification of Doppler parameters.
14. System must be offered with High Definition Speckle Reduction Imaging
15. The system should have the 'Speed of Sound Correction' feature. Specify number of such sound correction speeds to adapt to tissue type. This feature should be available both in linear and convex transducers.
16. The machine should support intima media thickness (IMT) quantification with automatic or user assisted tracing of intima-media complex.
17. System should also offer Pulse Wave velocity measurement to measure the stiffness of the arterial walls or arteriosclerosis.
18. System should have High definition and PAN / zoom facility.
19. System should be able to support at least four electronic transducers with universal ports with simple electronic selection method for interchanging transducers. Additional parking ports would be preferable.
20. System should have one touch optimization for 2D & Doppler Modes.
21. System should have Cine loop facility, both frame by frame and in cine mode, with a memory for at least 3 minutes in 2D, color and Elastography modes. The system should also be able to review and at least 20 seconds of Doppler and M mode data.
22. The system should have facility of direct storage and retrieval of B/W and color images in both frozen and cine loops in the inbuilt hard disk drive. In- built hard disk storage for images should be for more than 10000 images.
23. System should have state of the art technology to enhance the needle shaft and tip for biopsy procedures. It should also predict the needle path on B Mode without attaching any needle brackets for more precise free hand biopsies.
24. System should have Ultra Sensitive imaging Doppler mode that increases by a factor of atleast 3 the sensitivity and the spatial resolution of conventional Doppler mode especially on slow flows Up to 160 images per second with Post processing controls to enable the visualisation of microvascular flow in both Real time and HD modes.
25. System should have real time simultaneous imaging mode that combines three modes - B-Mode, SWE and microvascular Color flow imaging modes - to visualize anatomy, tissue stiffness and blood flow simultaneously to improve the workflow.
26. The system should have advanced color Doppler facility to position at least three spectrograms (online or offline) on a single image within the same cardiac cycle with ultrahigh framerates (around 200 frames/sec in Doppler mode) to si

30 1' 15

mplify the workflow and reduce the examination time for Vascular application with both convex and linear transducers.

27. System should have the capability to be upgradable to FUSION Imaging, Needle guidance and Volume Navigation with ability to fuse Shearwave Elastograpghy and color imaging data with the dataset of second modality during FUSION Imaging.
28. The real time shear wave elastography mode should be capable of performing;
    1. Real time Shear Wave tissue elastography imaging with convex, linear, 3D, microconvex and endocavitary transducers.
    2. The elastography should be Real-time, Fully automatic; requiring no manual / automatic compression with reproducible results for Liver, Breast, Thyroid, Prostate, Gyn, Renal and MSK applications.
    3. System should be able to generate a color coded elastogram with a reference Adjustable Numerical elasticity scale for each application.
    4. System should be able to display simultaneously both color coded elastogram and corresponding B-Mode image in real time for performing elastography guided biopsies/FNAC.
    5. There should be User adjustable elasticity-box size with a Display Depth: 0 - 12 cms
    6. Elastography Quantification should be available with pixel accurate absolute or discreet Elasticity values on all transducers.
    7. Elastography quantification tool (Ellipse and trace) should be able to provide Mean, Max & Min elasticity values of the tissues in both m/s and kPA (KiloPascal) on all transducers.
    8. System should have integrated report worksheet for Liver elasticity assessment.
29. Fully optimized Contrast Imaging mode should be available with simultaneous acquisition of B-mode and Contrast images in real-time in full screen or Side-by-side display.
    1. On-screen Contrast timer should be available allowing up to 5 minutes of streamed prospective cine capture
    2. Independent control of contrast color maps, TGC curves, and Dynamic Range
    3. Flash micro bubble destruction mode should be available
    4. User adjustable number of frames, Micro-vascular Imaging, and persistence imaging should be available to assess slow micro-vessel perfusion
30. A high resolution, fully articulation non interlaced flicker free, anti glare, flat panel display of 21 inches or more.
31. System should have facility to transfer data from the hard disk on to a removable media (CD /DVD/USB).
32. The system should be DICOM 3.0 (or higher version) ready (like send, receive, print, record on CD/DVD, acknowledge etc.) for connectivity to any network, PC/computer etc. in DICOM format. Vendor will connect the machine to existing PACS and to local other laser cameras without additional cost.
33. DICOM structured reporting for Obstetrics should be available.
34. The system should have advanced Query Retrieve capabilities to Query full native data from the PACS, and display Retrieved images side- by-side with real-time ultrasound on system's monitor.
35. The system should have CD-DVD and USB archival (DICOM and PC format)
36. Both the machine and the real time shear wave elestography should be USA FDA certified.

Transducers: Following transducers should be offered with the system:
1. Curved array 1 - 5 MHz.
2. Linear array 4 - 15 MHz.
3. Endocavitary probe 3 - 12 MHz with FOV of 135 or above
4. Microconvex Probe 3-12 MHz.

Optional Transducers : Please quote prices separately
5. Linear 3D volume probe 5-16 MHz.
6. Endocavitary 3D Volume probe 12 – 3MHz
7. Linear array 15 – 4MHz
8. Linear Hockey Stick Probe 6-20 MHz

Accessories:
1. On-line UPS with capacity for an hour backup to support all functions of the equipment i.e. Performing Ultrasound procedure, exposure on to films or copy on a CD.
2. A Dry chemistry camera of 500 DPI or more with two active trays.
3. Essential furniture - Two patient couch with mattress, 5 revolving chairs from reputed make like Godrej, 2 Tables, Almirah from Godrej, foot step, pillows,
4. Offline solution for quantification of perfusion parameters like Contrast Wash-in & wash-out curves etc.

Buy Back:
The procurement is on a buy back basis against Aloka USG, Model: Prosound SSD 3500. Vendor can inspect it after taking permission from HOD.

2

Upgrading requirements

A free, comprehensive software upgrade (compatible with the existing platform) guarantee for 10 years (after installation) of the ultrasound unit must be provided.

Guarantee/Warranty

1. Five years comprehensive onsite warranty of entire system (Spares and labour), without exclusion, including all transducers, all other accessories and also UPS including batteries. This will be followed by 5 years CAMC to be quoted separately, year wise.

2. Following completion of warranty, 5 years CAMC will start. AIIMS terms and conditions will aplly during this period.

General Instructions for the Vendor

1. Supplier must ensure availability of expertise service and maintenance at site of installation. Uninterrupted availability of spare parts and repair for next ten years must be assured.

2. Two bid system: vendor is required to make separate bids for technical and price components. These should be quoted in two separate sealed envelopes.

3. Please note that all technical features, facilities and accessories mentioned in the tender document are standard requirements and hence, these should be offered as the standard feature. None of these should be offered as optional items.

4. In price bid, cost of locally supplied items must be quoted separately in Indian currency.

5. Please respond to each specification in the same format and order as mentioned in the tender document and specify/indicate the verification document form the product data sheet against each column.

6. When required, information other than those in the data sheets should be provided as separate document from the principals only and should refer to the specific sections being addressed. When standard vendor data sheet disagrees with the bid response (offer/compliance statement), clarification should accompany in the form of certificate from the principals only. In absence of this, the vendor data sheet will prevail for the purpose of evaluation and decision of the technical committee shall be final and binding on the supplier.

7. The vendor has to station one application specialist and service engineer at site for a period necessary to familiarize the medical and technical staff to the scanner protocols and enable them to achieve fast and efficient service.

8. Mention the number (with addresses, phone numbers, e-mails) of installations of the quoted unit in the Delhi and India.
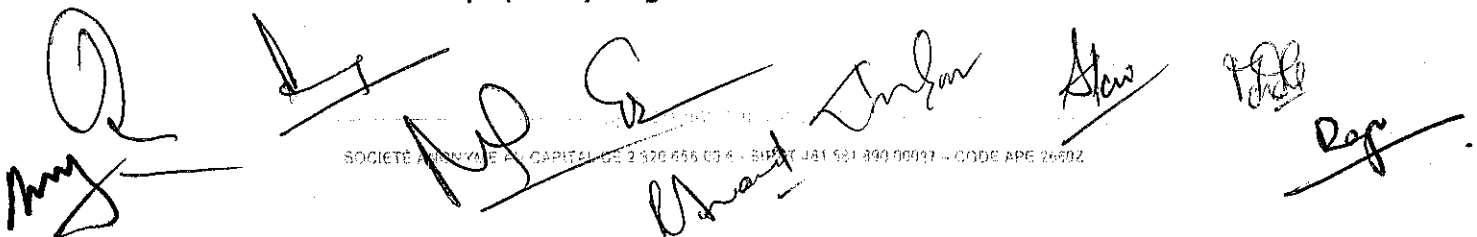
3

Proprietary Article Certificate

8th, January 2019

To Whom it may concern,

Please find below our "Proprietary Article Certificate" details.

1. **Only Real Time Shearwave Elastography System** – Real-time ShearWave Elastography, pioneered by SuperSonic Imagine, allows physicians to visualize and quantify the stiffness of tissue in a real-time, reliable, and reproducible manner. Tissue stiffness has become an important parameter in diagnosing potentially malignant tissue or other diseased tissue. More than 500 peer-reviewed publications have demonstrated the value of SWE for the clinical management of patients in a wide range of diseases. : Patent number : US 136 42478A, US 2009 599260, US2003526407A, WO2014IB3123A

2. **Elastography guided Biopsy** – Visualization of biopsies in Elastography mode is possible due to our unique Real Time design – Patent Number: US2003526407A

3. **TriVu** - Aixplorer is now the only ultrasound system that offers TriVu, a real-time simultaneous imaging mode that combines B-mode, SWE™ and enhanced color imaging. This allows physicians to visualize anatomy, tissue stiffness and blood flow simultaneously.

4. **Needle PL.U.S.** – Needle PL.U.S. enables you to visualize biopsy needles and anatomical structures in real time with unrivaled precision, and also predict where the needle is supposed to go. You save time, gain in comfort and reliability.

5. **Real Time Shearwave Elastography** in all transducers including Hockey Stick Linear, Micro Convex, 3D Linear, 3D Endocavity & details of all the other transducer. This is unique to SuperSonic Imagine Products due to our proprietary design. Patent Number: WO2014IB3123A

6. Ultrafast Doppler – Extending the limits of workflow ease and ultrasound technology, the Aixplorer now brings its patented UltraFast™ Imaging platform to the Doppler arena by combining Color Flow Imaging with Pulsed Wave Doppler in one easy-to-use ultrasound mode. Patent Number: US13984011A

7. Fusion / Navigation– SuperSonic Imagine's Real Time Shearwave Imaging allows to use advanced tools such as Fusion / Navigation and to guide interventional procedures allowing for more precision

8. Angio PL.U.S. - PLanewave UltraSensitive™ imaging, provides a new level of microvascular imaging through significantly improved color sensitivity and spatial resolution while maintaining exceptional 2D imaging.

Sincerely,

President and CEO
Michele Lesieur
08th, January 2019

Michèle LESIEUR
Présidente Directrice Générale

ALL INDIA INSTITUTE OF MEDICAL SCIENCES
ANSARI NAGAR, NEW DELHI-110029

PROPRIETARY / SPECIFIC BRAND GOODS CERTIFICATE

1. Item/Type/Model No. required along with specification

    High end Color Doppler System with realtime Shearwave Elastography
    Model: Aixplorer Ultimate

2. If the item a spare part attachment or accessory for existing equipment.

    NO

3. Name of the manufacturers / Supplier of the item proposed by the indenter.

    Manufacturer: Supersonic Imagine Private Limited
    Supplier: Azziz & Sarah Healthcare

4. Are they sole manufacturer/sole distributors of the item.

    yes

5. If there any other item with similar/ equivalent specification available in the market to meet the job requirement envisaged. if the answer is yes, why the same can't be procured. Demanding Officer should bring out comparative functional advantage/cost effectiveness of the recommended item from these offered by other.

    Not available

6. What were the efforts made to locate alternative source of supply of use other substitutes

    Internet search, direct talk with major vendors & earlier Their presentations in the deptt.

7. Why open/limited tender can't be resorted to, for locating alternating source.

    will not be helpful.

8. Are the proprietary items certifying that the rates are reasonable or not.

    yes

9. Any other justification for procuring item from single source.

    Real time shearwave elastography in all the transducers will be very useful esp. in cancer patients & will assist in diagnosis & overall management.

(Counter Signed)

(Head of the Department)

Dr. Arun Kumar Gupta, MD, FAMS
Professor & Head
Department of Radiodiagnosis
All India Institute of Medi...
New Delhi-110029

Signature of Indenter

(Demanding Officer)

I certify that the item at Sr. No. 1 above is required to be procured on single tender basis as the source of supply is definitely known/ the specific brand proposed was advantages in meeting our functional requirements and limited tender system could be dispensed with as they would serve no useful purpose in this particular case.

(Strike out whichever is not applicable)