KERALA MEDICAL SERVICES CORPORATION LTD

(A Government of Kerala Undertaking)
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CIN: U24233KL200TSGC021616, PAN : AADCK4029M, GSTIN : 32AADCK4029M1ZK

Running Contract Details

Equipment Name	OT INTEGRATION
Running Contract Valid Till	29-01-2026
Tender Ref No	KMSCL/EP/T500/1675/2023
Tendered Quantity	Item wise mentioned in below
Supplier Name	M/s Lakshmi Surgicals
GST No	32AACFL2603A1ZB
Installation & Delivery Period	16 Week(s)
Up-time / PM vist	95% & 4 Visits per year
Warranty period	3 Years

Supplier`s Details

Address	Contact Details	
2nd Floor 12/307-C1 KSIE Building CIC Freight Station ICTT Road Anavathil Jn. Udyogamandal Eloor Ernakulam - 683501	Contact Person	Mr. Viji Vijayan
	Phone	0484-2988006
	Mobile No	99466 02090
	Email	lakshmisurgicals2005@gmail.com

Item-wise Price Details

#	Item Details	Tendered Qty	Unit Rate (Incl.all taxes & charges)	Service Charges (Through KMSCL)	Grand Total
1	**Video Image management & communication system** *Model & Make : Karl Storz*	36	3093673.33 Incl.GST :12%	228158.41	3321831.74
2	**Graphical User Interface** *Model & Make : Karl Storz*	36	46666.67 Incl.GST :12%	3441.67	50108.34
3	**Streaming as per the specifications** *Model & Make : Karl Storz*	36	46666.67 Incl.GST :12%	3441.67	50108.34
4	**On-Air Lamp** *Model & Make : Karl Storz*	36	68482.14 Incl.GST :18%	4793.75	73275.89
5	**Digital Documentation System** *Model & Make : Karl Storz*	36	1404761.9 Incl.GST :18%	98333.33	1503095.23
6	**Unified Communication** *Model & Make : Karl Storz*	36	46666.67 Incl.GST :12%	3441.67	50108.34
7	**PTZ Room Camera**	36	282200 Incl.GST :12%	20812.25	303012.25

			Item-wise Price Details			
8	**Audio Components**	36	459219.48 Incl.GST :18%	32145.36	491364.84
9	**Cable Sets, Patch Panels & Accessories**	36	594229.33 Incl.GST :12%	43824.41	638053.74
10	**Ceiling Suspended Spring Arm**	36	475787.23 Incl.GST :18%	33305.11	509092.34
11	**31â€•/32â€• 4K Medical Grade Monitors** *Model & Make : Karl Storz*	36	1680600.38 Incl.GST :28%	108451.24	1789051.62
12	**26â€•/27â€• Full HD Medical Grade Monitor** *Model & Make : Karl Storz*	36	668952.38 Incl.GST :28%	43168.33	712120.71
13	**55â€• Commercial TV**	36	91417.91 Incl.GST :28%	5899.31	97317.22
			8959324.09	**629216.51**	**9588540.6**

Annual / Comprehensive Maintenance Charges (Exl.Tax)							
Rate	4ᵗʰ Year	5ᵗʰ Year	6ᵗʰ Year	7ᵗʰ Year	8ᵗʰ Year	9ᵗʰ Year	10ᵗʰ Year
Video Image management & communication system							
Labour	1,52,353.00	1,59,971.00	1,67,970.00	1,76,369.00	1,85,187.00	1,94,446.00	2,04,168.00
Comprehensive	5,33,235.00	5,59,897.00	5,87,892.00	6,17,287.00	6,48,151.00	6,80,559.00	7,14,587.00

Other terms & conditions

1. The supplier shall execute an agreement with the purchaser as per tender conditions (agreement format is given in the tender document).

2. The supplier shall submit performance security amounting to 5.00% of the value of the supply order.

3. The labour & comprehensive charges of equipment after the completion of warranty period is finalized by KMSCL as mentioned above.

4. Since discount rate is not applicable for equipment under Running Contract of KMSCL, purchase/supply order can be issued directly to supplier at the given rate with tax & other charges (exclusive of KMSCL service charges).

5. If purchase/supply order is issued directly to the supplier, KMSCL service charge need not be paid. But the copy of the said order may be forwarded to KMSCL for information.

Technical Specification

Equipment :Video Image management & communication system

Equipment: OT INTEGRATION

I. Video Image management & communication system:

1. The system should be medical grade and provided for each Operation Theater with the configuration & cabling to support the following:

S.No	Source	Destination
1	Robotic surgery	Medical Grade Monitor (OT Light Spring Arm)
2	Endoscopy Camera.	Medical Grade Monitor on ceiling suspended arm
3	OT Light Camera.	Large Screen Commercial monitor on wall
4	Room PTZ camera.	Archiving System
5	Patient Vital Sign	Archiving System
6	Microscope/C-Arm	Monitor on the OT light / ceiling suspended arm / wall
7	PACS PC	Monitor on the OT light / ceiling suspended arm / wall

2. Switching & Routing system should have minimum eight inputs and eight outputs. It should be compatible for signals like HD, FHD, 3D, 4K, etc. The routing/switch   system should be able to integrate Full HD/HD/3D/4Ksignal (e.g. Room Camera/OT Light Camera/ Endoscopic Camera/ Recorded Videos/Etc).

3. All the inputs and outputs of the system should be capable for resolution up to 4K   both in 3D & 2D.

4.The routing system should allow selection of multiple views for in PIP & PAP.

5. Composed picture in PAP /PIP can be routed to any destination connected simultaneously to an output and streamed.

6. The system should be able to route & switch PACS image received from PACS PC to monitors inside the OT.

7. Patient and image data (Endoscopic or open procedure) should be able to call up and distributed to required monitors in the operating room. Cross conversion and   scaling for signals should be available as standard (Every SD, HD, 4K & 3D input can be routed to any output within MOT).

8. All patch panels required for OT Integration system should be in the bidder's scope of work.

9. OT Integration vendor shall share drawings and necessary cut outs and provisioning shall be under the scope of MOT vendor once the drawings are approved.

 Equipment :Graphical User Interface

II . <u>Graphical User Interface:</u>

1. The control unit(screen) shall be a medical grade touch panel with 21-24" touch screen with native resolution 1920x1080 pixels (FHD)

2. It shall be an interface for Routing, Switching & Documentation

 Equipment :Streaming as per the specifications

III. <u>Streaming</u>

1. Any of the video source inside the OR should be streamed in Full High Definition over Local Area Network for uni-directional Video transmission & Bi-Directional Audio transmission to Doctor's room in the OT complex and to the Hospital's

Auditorium for teaching purpose. Streaming of Videos in PIP /PAP shall be over LAN.
2. Streaming should have :
    a. Video encoding: H.264 MPEG-4 (1080p compressed)
    b. Audio encoding: MPEG-4 AAC-LC; Talkback
    c. Unicast Streaming
    d. MPEG Transport Stream over UDP / RTP
3. Streaming picture with telestration should be visible to participant connected over Local Area Network with this system. Telestration should be Bi-Directional with both the surgeon inside the OT and participant can exchange information using Telestration.
4. Telestration should have:
    a. Mouse pointer
    b. drawing line
    c. Different colors for each logged on streaming participant.
    d. Telestration visible and controllable to all streaming participants
5. LAN network in the hospital shall be under the scope of the hospital.

Equipment :On-Air Lamp

IV.<u>On-Air Lamp:</u>

1. RGB Signal Lamp, to visually display video and audio signals activated from or to an external destination. ON Air lamp set includes:
    a. 1 On Air lamp unit
    b. 1 ON Air Lamp cable set
    c. 1 mounting kit
2. Should be integrated with a system for video transmission.

Equipment :Digital Documentation System

V.<u>Digital Documentation System:</u>

1. Should have provision to record the video, images and audio files in OT.
2. The Digital Documentation System should be a high-end medical grade computer system based on Windows 7/8 or better embedded platform (for security purposes) designed specifically for recording, managing, and archiving surgical images and video in native full HD 2D ,3D & 4K resolution. The captured full high-definition images & videos can be accessed from the hard drive for printing or saving onto USB Flash Drive & Hospital network.
3. Should allow recording of two video & image source simultaneously.
4. It should have at least 2TB or more internal Hard Disk Drive (HDD) for in-system archiving. Also, should be able to automatically transfer the data to Integration control room for optimum use. It should be able to preview and simultaneously record views from two video sources parallel and archive as single patient file.
5. System shall be capable of having HL7 connectivity for integration with Hospital Information System.
6. System shall be capable of having DICOM connectivity for integration with PACS.
7. System should include a Patient Safety Checklist accessible before, during and after interventions via the Touch Screen. The PSC is meant to harness clinical will to address important safety issues in different phases. These phases are as follows:
    a. Sign In before induction of Aesthesia.
    b. Times out before skin incision.
    c. Sign out after intervention.
    d. Patient Safety Checklist should be customizable.

8. System should be SE-46 whitelisted and have AES-256 Database encryption for highest standard of cyber security.

9. Should allow storage of 5 or more group profiles and individual profiles for user settings.

10. Approval: IEC 60601-1-1, EN60601-1, EN60601-2.

11. Classification: CE, MDD, CSA.

12. Protection Class: 1/B.

13. Video format to be in MPEG-4, MPEG-2, MOV.

14. Image format to be in BMP, JPG, JPNG.

Equipment :Unified Communication

VI.   Unified Communication:

1. System should allow Bi-Directional Audio & Video Communication between OTs with exchange of any video source inside the OT with the other OT.
2. The system should allow Bi-Directional Audio & Video Communication with exchange of any video source of the OR to the outside world on the internet.
3. Internet and IT networking & cabling shall be provided by the hospital.

Equipment :PTZ Room Camera

VII. PTZ Room Camera:

1. PAN/ Tilt /Zoom camera of resolution 1920x 1080 to be provided on the wall/ceiling. It shall be used for room view during live transmission of surgeries. PTZ camera should have optical zoom 10x or more.

Equipment :Audio Components

VIII.Audio Components

1. Head Wearing Microphone, along with Digital Signal Processor for echo cancellation with speaker system to be provided for Bi-Directional audio communication during Live Streaming or for Unified Communication.

Equipment :Cable Sets, Patch Panels & Accessories

IX. Cable Sets, Patch Panels & Accessories:

1. Necessary cabling along with necessary patch panels & accessories for Integration of any surgical / non-surgical video source inside the OT with OT Integration set up to support resolution up to 4K in both 2D & 3D. Auxillary video output in 12G SDI & Audio output to be made available for cabling/transmission by AV vendor to doctors room/conference room and so on.

Equipment :Ceiling Suspended Spring Arm

X. Ceiling Suspended Spring Arm

1. Separate Arm in order to install & handle monitor up to the size 32". It should offer full rotation in order to move & rotate the monitor installed.

Equipment :31"/32" 4K Medical Grade Monitors

XI. 31"/32" 4K Medical Grade Monitors

1. Medical Grade monitor of resolution 4K of size 31" or more. It shall be with all necessary cables & connectors in order to install on the third arm of OT Light or on the separate ceiling suspended arm.

Equipment :26"/27" Full HD Medical Grade Monitor

XII. 26"/27" Full HD Medical Grade Monitor

1. Medical Grade monitor of resolution Full HD of size 26" or more. It shall be with all necessary cables & connectors to install on the third arm of OT Light or on the separate ceiling suspended arm.

Equipment :55" Commercial TV

XIII. 55" Commercial TV on wall

1. 55" or more commercial TV for viewing of any image inside the OR or for viewing image during Unified Communication.

Note:

1. If CDSCO (Central Drugs Standard Control Organization) certification is required for the import and marketing of the equipment, then the same shall be submitted along with the technical bid
2. Warranty exclusions if any shall be discussed at the time of prebid meeting else the tender condition as per clause 6.31.20 shall prevail