

**All Bidders****Amendment –I**

Project: Supply, Installation, Testing & Commissioning of Integration & Data Management System for Modular Operation Theatres for Hospital Block, All India Institute of Medical Sciences (AIIMS), Kalyani.

IFB No. HSCC/SES/IOT/AIIMS/Kalyani/2019 dated 29.07.2019

This has reference to above IFB.

The following Amendment may be noted which shall be treated as part of the tender document and to be submitted duly signed & stamp along with tender.

S.No	Bidders' Queries	Reply
1.	<p><b>Scope of work</b> Bidder should be responsible for all cut-outs, patch-panels, flushing of monitors, etc. and repairing &amp; repainting of OTs thereafter (If required) for successful completion of work. It is requested it to be added in the scope of Modular OT vendor.</p> <p>All the cut outs for patch panel on the MOT wall / pendant/ OT Light spring arm supplied by the MOT vendor shall be in the scope of MOT vendor. Design for the same shall be provided by OT integration vendor.</p>	Deleted

2.	<p>Bidder has to provide all required trenches/ trays, conduits for fibre optic cables, electrical cables, data cables, etc. with all necessary cabling required for integration system. MOT vendor will provide necessary cut-outs as per approved drawing provided by institute/consignee. MOT vendor will also provide dedicated MCBs/MCCBs minimum 2Nos for integration equipment in MOT Distribution Board (DB) rest cabling will be in the scope of integration vendor for integration equipment's. Institute will provide one-point LAN incoming supply for each MOT, rest bidder is responsible to connect Integrated MOT to Hospital Network. All electrical components should be used as per industry standards and norms.</p> <p>It is requested that 4 Nos of LAN point to be provided in each MOT for integration equipment.</p>	<p>Bidder has to provide all required trenches/ trays, conduits for fibre optic cables, electrical cables, data cables, etc. with all necessary cabling required for integration system. MOT vendor will provide necessary cut-outs as per approved drawing provided by institute/consignee. Integration bidder is responsible for laying cable from DB to OT sockets with switching for the integration power requirement. However, Integration bidder should submit sample/template of all kind of cut-outs required in Wall panels, Ceiling panels, Anaesthesia &amp; Surgeon Pendants along with cut-out drawings, with the technical bid. In case the cut-out details are not provided by the Integration bidder along with bid, then Integration bidder shall carry out all cut-outs at their own cost &amp; risk.</p> <p>MOT vendor will also provide dedicated MCBs/MCCBs minimum 2Nos for integration equipment in MOT Distribution Board (DB) rest cabling will be in the scope of integration vendor for integration equipment's. Institute will provide one-point LAN incoming supply for each MOT, rest bidder is responsible to connect Integrated MOT to Hospital Network. All electrical components should be used as per industry standards and norms</p>
<b>Audio Video Communication System</b>		
3	<p>i) All patch panel work required for Hardware of OT Integration system should be in the bidder's scope of work and also necessary co-ordination with consignee, MOT Vendor, construction vendor and HSCC/Institute will be the responsibility of the bidder for successful completion of all the associated works.</p> <p>It is requested that All the cut outs for patch panel on the MOT wall / pendant/ OT Light</p>	<p>All the cut outs for patch panel on the MOT wall / pendant/ OT Light spring arm supplied by the MOT vendor shall be in the scope of MOT vendor. Design for the same shall be provided by OT integration vendor.</p>

	spring arm supplied by the MOT vendor shall be in the scope of MOT vendor. Design for the same shall be provided by OT integration vendor.	
	<b>6 Live Video Streaming –</b>	
4	<p>The integration System should be supplied with minimum 10 User License to simultaneously remotely view of video sources of MOTs with following features –</p> <ul style="list-style-type: none"> <li>a) Full HD live streams of at least three-user selectable any Video sources of each integrated MOT should be provided with suitable encoders &amp; decoders. The sources for the video streaming is freely selectable and the surgeon should be able to put the OT in Private Mode/off, if streaming of Audio-Video is not required to a particular user or to all the users</li> <li>b) The Live Streaming of VC should be possible as one of the AV sources out of three for each MOT as described above</li> <li>c) All Licensed user should simultaneously login through browser based application, based on user privileges defined, to remotely view all streamed audio-video sources and logged-user should be able to select any video from all the Video Signals streaming from all the Integrated MOTs simultaneously. Any user should be able to see all streamed AV sources like - Endo Cam, In light Cam, Room Cam, C-Arm, etc. of any of the MOT at any given point of time.</li> </ul> <p>It is requested that Full HD Live streams of any of the selected video source of the integrated MOT can stream within the Hospital network. Streaming should allow Uni-directional Video &amp; Bi-Directional audio communication with telestration.</p>	The integration System should be supplied with minimum 50 User License to simultaneously remotely view of video sources of MOT's
5	<p>Integrated routers should be placed in the Doc station well encapsulated with Modular OT walls Trolley based VC OR And all cables should be properly laid in conduits terminating at the Doc station from Patch panels Room Camera, Pendants, OT Lights, 42" Monitor and Monitor arms.</p>	<p><b>Trolley Based VC System</b></p> <ul style="list-style-type: none"> <li>a) The VC system should be equipped with all hardware, software &amp; licenses to enable the bi- directional Video Conferencing like – FHD Camera with 10x Optical Zoom, Freely PAN/TILT for view setting with all controls, dedicated</li> </ul>

	<p>Steaming solution inside the OT, Integration Router system and Server in the Control Room should be from the same principle manufacturing company and should be classified Medical Device No off the shelf IT DVR solution should be provided.</p> <p>a) The VC system should be equipped with all hardware, software &amp; licenses to enable the bidirectional Video Conferencing like – FHD Camera with 10x Optical Zoom, Freely PAN/TILT for view setting with all controls, dedicated wireless Mic, Speaker, min. 26” LED monitor, etc. and suitable system for dialling &amp; receiving the IP calls.</p> <p>b) Should be ready to connect with Patch Panels &amp; Hospital Network, suitable accessories should be provided.</p> <p>Please clarify on the mentioned points. Since these points are not very clear.</p>	<p>wireless Mic, Speaker, min. 26” LED monitor, etc. and suitable system for dialling &amp; receiving the IP calls.</p> <p>b) Should be ready to connect with Patch Panels &amp; Hospital Network, suitable accessories should be provided.</p>
6	<p>b) The Audio-Video system should have minimum 8 x 8 Digital / 12 x 12 Digital with open Architecture having compatibility of signals like SD, HD, FHD, 3D/4K signals like SD, HD, FHD, 3D/4K signal etc. (e.g. Room Camera/OT Light Camera/ Endoscopic Camera/ Recorded Videos/etc)The routing/Switch system should be able to integrate Full HD/HD/SD/3D/4K signal (e.g. Room Camera/OT Light Camera/ Endoscopic Camera/ Recorded Videos/Etc)</p> <p><b><u>Amendment Requested:</u></b></p> <p>We would request you to kindly keep the input output requirements as mentioned:</p> <p><b>“The router should be having 12x12 Digital and upgradable to 18x18 with open architecture and which is upgradable to future input / output requirements”</b></p> <p>The same will ensure the quality and efficiency of the integration system quoted by the various bidders moreover AIIMS being an esteemed and prestigious institute should always opt for state of art technology and keeping in mind the video flow and no. of equipment’s used inside the OT it is always better to have minimum 12X12 router system and keeping in mind the future</p>	Tender terms & conditions prevail

upgradation and addition of equipment's the same should be upgradable to 18X18. The same 12X12 input output matrix system was there in AIIMS Delhi and NCI Jhajjar too and all the parties have quoted the tender and qualified in the technical bid too.

Keeping the above facts in mind we once again request you to keep the 12x12 router in order to ensure the efficiency and proper utilization of integration system.

Below is the input output matrix explaining that why 12 X 12 is necessary for any integration solution.

S.no	Input Source	Signal type
1	Endoscopic camera	SD, HD, FHD, 3D/4K
2	In-Light camera	SD, HD, FHD, 3D/4K
3	Recording System	SD, HD, FHD, 3D/4K
4	C Arm	SD, HD, FHD, 3D/4K
5	Ultrasound	SD, HD, FHD, 3D/4K
6	Microscope	SD, HD, FHD, 3D/4K
7	Patient Vital Sigh	SD, HD, FHD, 3D/4K
8	Navigation system	SD, HD, FHD, 3D/4K
9	Archiving System	SD, HD, FHD, 3D/4K
10	Conferencing Solution	SD, HD, FHD, 3D/4K
11	Free for Future Use	SD, HD, FHD, 3D/4K
12	Free for Future Use	SD, HD, FHD, 3D/4K

So minimum desired Input /Output Matrix should be **12\*12 Inputs/Outputs** as per above explanation.

**Free for Future use ports** are also very important so that infuture **PACS or HIS or Robotics integration or integration of any**

	<b>other medical device</b> can happen smoothly and OR's are future ready.	
7	<p><b>Tender Specs:-</b> Point : The routing system should allow selection of multiple views for simultaneous transmission in QUAD or PIP format</p> <p><b>Amendment Requested:-</b> The routing system should allow selection of multiple views for simultaneous transmission in QUAD and PIP format</p> <ul style="list-style-type: none"> <li>• <b>6 Live Video Streaming –</b></li> </ul>	Tender terms & conditions prevail
8	<p><b>The integration System should be supplied with minimum 10 User License to simultaneously Remotely view of video sources of MOTs with following features</b></p> <p><b>Amendment Requested:</b></p> <p>AIIMS being a prestigious institute and keeping in view the number of residents in AIIMS we strongly recommend the following:</p> <p>The integration System should be supplied with minimum 50 User License to simultaneously remotely view of video sources of MOT's</p>	The integration System should be supplied with minimum 50 User License to simultaneously remotely view of video sources of MOT's
9	<p><b>Point a:</b> Full HD live streams of at least three-user selectable any Video sources of each integrated MOT should be provided with suitable encoders &amp; decoders. The sources for the video streaming is freely selectable and the surgeon should be able to put the OT in Private Mode/off, if streaming of Audio- Video is not required to a particular user or to all the users</p> <p><b>Amendment Requested:</b></p> <p>Full HD live streams of at least three-user selectable seems to be a typo error because <b>as per the specs "any video has to be streamed "</b> Tender technical specification requirement implies that all the video sources available in the OT can be streamed and minimum level of video source streaming should be <b>at least 8 users instead of 3 users as the matrix asked in tender is 8X8/12X12.</b></p> <p><b>i.e. Full HD live streams of at least eight-user selectable any Video sources of each integrated MOT should be provided with</b></p>	<p><b>"Any video has to be streamed "</b></p> <p>Full HD live streams of at least eight-user selectable any Video sources of each integrated MOT should be provided with suitable encoders &amp; decoders</p> <p>Any user having the valid user license should be able to simultaneously view the streaming of any video source of integrated MOT at any given point of time though secure web base login.</p>

	<p><b>suitable encoders &amp; decoders</b></p> <p>However we suggest that there should not be any restrictions in user selection i.e. any user having the valid user license should be able to simultaneously view the streaming of any video source of integrated MOT at any given point of time though secure web base login.</p>	
10	Quality standards- European CE with 4 digit notified body no/US FDA for the quoted model	Quality standards- BIS/European CE with 4 digit notified body no/US FDA for the quoted model.

**Revised BOQ is attached.**

**The bid submission date is extended from 26.08.2019 to 30.08.2019 and bid security should be valid for 180 days from the date of original bid submission ie. from 26.08.2019.**

All other terms & conditions remain unchanged.

Sr. Chief General Manager -I, HSCC (I) Ltd.  
For and behalf of Director, AIIMS, Kalyani