



COCHIN PORT AUTHORITY

Phone : 91 0484 2666639  
: 91 0484 2582300/2582336  
e-mail : [cme@cochinport.gov.in](mailto:cme@cochinport.gov.in)

OFFICE OF THE  
CHIEF MECHANICAL ENGINEER  
Willingdon Island, Cochin 682 009.

No. GEM/2024/B/4591902

Dated: 15/03/2024

**CORRIGENDUM – 2 - Tender Extension Notice & Amendment to Bid Document**

Sub: Tender for “Supply, installation, testing and commissioning of 36 nos. of IP CCTV surveillance system at various locations of Cochin Port Authority with 2 years guarantee and 5 years comprehensive AMC thereafter” – Tender Extension & Amendment to Bid Document – Reg.

Ref: (1) This office GEM BID No.GEM/2024/B/4591902 Dated 06/02/2024.  
(2) This office CORRIGENDUM – Tender Extension Notice Dated 05/03/2024.

Based on the Bidder’s request, the last date of submission & due date of opening of subject tender is hereby extended up to **25/03/2024 at 15.00 hrs. & 15.30 hrs.** respectively. For further details, please log on to [www.cochinport.gov.in](http://www.cochinport.gov.in) / [www.eprocure.gov.in](http://www.eprocure.gov.in) / [www.gem.gov.in](http://www.gem.gov.in) portal. The bidders are requested to submit their bids after going through the Corrigendum/ Amendment 1 and 2 and also upload copies of the corrigendum 1 & 2 duly signed on all the pages to ensure that the bid is as per the corrigendum/ amendment.

The Corrigendum 1 & 2 with attachments will form part of the Tender document. The approved makes given in the Corrigendum-2 will override the approved makes of the respective items mentioned in the Bid Document and Corrigendum-1/Amendment issued earlier, wherever they differ.

  
CHIEF MECHANICAL ENGINEER

Encl : Amendment-2 to Bid Document







## CORRIGENDUM-2 TO TENDER DOCUMENT

The approved makes of following items are amended as follows. The Bidders shall quote for these items strictly as per the makes mentioned in Corrigendum-2.

ITEM DESCRIPTION	AMENDED PPROVED MAKES
CCTV CAMERA	AXIS/ AVIGILON/ BOSCH/ PELCO / HANWHA TECHWIN / HONEYWELL EQUIP or 70 series / PANASONIC I-PRO/ TYCO-ILLUSTRA PRO / SONY / MOBOTIX
NETWORK SWITCH / SFP MODULE	ALLIED TELISIS / CISCO / HP / JUNIPER / NETGEAR
VMS ***	ALLGOVISION / GENETEC / MILESTONE / VIDEONETICS/ AXIS/ AVIGILON/ BOSCH/ PELCO / HANWHA / HONEYWELL / PANASONIC / TYCO / SONY / MOBOTIX
CAMERA RECORDING SERVER OR NVR	HP / DELL/ LENOVO/ AXIS/ AVIGILON/ BOSCH/ PELCO / HANWHA / HONEYWELL / PANASONIC / TYCO/ SONY / MOBOTIX
CENTRAL VIDEO AND DATABASE MANAGEMENT SERVER	HP/ DELL/ LENOVO/ AXIS/ AVIGILON/ BOSCH/ PELCO / HANWHA / HONEYWELL / PANASONIC / TYCO/ SONY / MOBOTIX

\*\*\* The Bidders can offer any of the VMS and Server mentioned above. It is the Successful Bidders responsibility to integrate the new 36 Nos. CCTV cameras and old 49 Nos. cameras and ensure that the images and surveillance is possible at the CCTV Control Room on the 7<sup>th</sup> floor of the New Administrative Building. The work shall be considered completed and taken over by CoPA only if the Contractor illustrates the images and satisfactory surveillance at the desired locations including mobile phones. The Contractor shall ensure that the VMS shall also support various brand and type of cameras which may be added in the near future. An undertaking shall be submitted in the bid that the OEM support shall be available for the CCTV Cameras, VMS, Server, HDD, High End work station, professional display etc. for at least 7 years from the date of commissioning. The Images shall be stored and made available for retrieval for 90 days. There shall be 5 year OEM warranty for the above items.

\*\*\*\*\*



COCHIN PORT AUTHORITY

(1)

Phone : 91 0484 2666639  
: 91 0484 2582300/2582336  
e-mail : [cme@cochinport.gov.in](mailto:cme@cochinport.gov.in)

OFFICE OF THE  
CHIEF MECHANICAL ENGINEER  
Willington Island, Cochin 682 009.

No. GEM/2024/B/4591902

Dated: 05/03/2024

CORRIGENDUM – Tender Extension Notice

Sub: Tender for “Supply, installation, testing and commissioning of 36 nos. of IP CCTV surveillance system at various locations of Cochin Port Authority with 2 years guarantee and 5 years comprehensive AMC thereafter” – Tender Extension – Reg.

Ref: This office GEM BID No. GEM/2024/B/4591902 Dated: 06/02/2024.

Based on the pre-bid queries in the pre-bid meeting held on 19/02/2024, the last date of submission & due date of opening of subject tender is hereby extended up to 15/03/2024 at 15.00hrs. & 15.30hrs. respectively. The replies to pre-bid queries/ addendum/ amendments to Tender Document are attached. For further details, please log on to [www.cochinport.gov.in](http://www.cochinport.gov.in) / [www.eprocure.gov.in](http://www.eprocure.gov.in) / [www.gem.gov.in](http://www.gem.gov.in) portal. The bidders are requested to submit their bids after going through the Corrigendum/ Amendment and also upload copies of the corrigendum duly signed on all the pages to ensure that the bid is as per the corrigendum/ amendment.

This corrigendum will form the part of the Tender document.

V. Thurai Pandian  
5/3/2024  
CHIEF MECHANICAL ENGINEER

HJ  
5/3  
5/3/2024

Corrigendum/ Amendment to tender document as per Pre-Bid held on 19-02-2024  
Ref-GEM/2024/B/4591902

Tender for Supply, installation, testing and commissioning of 36 nos. of IP CCTV surveillance system at various locations of Cochin Port  
Authority with 2 years' guarantee and 5 years comprehensive AMC

Bidder 1					
SI No.	Section	Clause No.	Bid Condition	Bidder's Queries	Reply to the query
1	SECTION IV- TECHNICAL SPECIFICATIONS	V. APPROVED MAKES - CCTV CAMERAS	AXIS/ AVIGILON/ BOSCH/ HONEYWELL/MOBOTIX	Request to include "Hanwha" make, (erstwhile "Samsung") in the approved list of makes in the tender.	AXIS/ AVIGILON/ BOSCH/ / HONEYWELL EQUIP or 70 series / PELCO / HANWHA TECHWIN / PANASONIC I-PRO
Bidder 2					
SI No.	Section	Clause No.	Bid Condition	Bidder's Queries	Reply to the query
1	SECTION IV- TECHNICAL SPECIFICATIONS	Clause 5. Video Management Software 5.3.1	The VMS should offer chat room for exchange of information such as text messages, user selectable files, archived video link, camera layouts, incident snap, clip and VA alerts for collaboration among the operators. The chat window should show colour coded status for messages which are sent, delivered and read. The administrator should have access to all the messages being exchanged among the operators.	Request to remove this clause as it is inclined to One OEM	This project has multiple location and operators. Hence, similar feature / communication between the operators are required. Tender condition prevails.
2	SECTION IV- TECHNICAL SPECIFICATIONS	Clause 5. Video Management Software 5.5.1	The mobile application shall support Apple IOS, Google Android, and Microsoft Windows Mobile operating systems.	Request to change as "The mobile application shall support Apple IOS, Google Android"	Tender condition prevails.
3	SECTION IV- TECHNICAL SPECIFICATIONS	Clause 5. Video Management Software 5.8	The VMS server software shall have the ability to be installed on an IP edge device—such as an IP camera or encoder that allows for 3rd party applications—allowing the device to serve as both a server and IP video recording device.	Request to remove this feature as we are transferring data to Central servers in DC, no Edge devices need to run the applications	Existing feature remains same and better specification will be accepted.

4	SECTION IV- TECHNICAL SPECIFICATIONS	Clause 5. Video Management Software 13.2	<p>The VMS should support a geo-fence based vigilance functionality. The VMS should show the cameras within the selected geo-fence. It should be possible to associate a base camera within the geo fence with other neighbourhood cameras to form a group for situational awareness of the neighbourhood. In case of an alert in the base camera, live feeds from all the cameras in the group should be popped up. The window should show the live video and the alert video clip from the base camera where the alert is generated, the neighbourhood cameras and the location of the incident on the map within the same window.</p>	Request to remove this clause as it is inclined to One OEM	The project has multiple location and operators. Tender condition prevails.
5	SECTION IV- TECHNICAL SPECIFICATIONS	Clause 5. Video Management Software 14.1	<p>The VMS should allow export of a single video clip or multiple clips with selected duration to a cart. For downloading a single clip, it should have encryption option for the exported clip and should ask to select the export format such as AVI, MJPEG, MP4 and AVF.</p>	Request to change as "The VMS should allow export of a single video clip or multiple clips with selected duration to a cart. For downloading a single clip, it should have encryption option for the exported clip and should ask to select the export format such as AVI / MJPEG / MP4 / AVF / Mkv / Native Database format".	Tender Condition Prevails
6	SECTION IV- TECHNICAL SPECIFICATIONS	Clause 5. Video Management Software 14.2	<p>Export file formats supported: .exe, .avi, .mjpeg, .mp4 and .avf</p>	Request to change as "Export file formats supported: .exe, / .avi, / .mjpeg, / .mp4 / .avf / .mkv / native database format"	Tender Condition Prevails

(4)

7	SECTION IV- TECHNICAL SPECIFICATIONS	Clause 5. Video Management Software 15.4	The VMS should seek answers for the multiple selectable security questions to each user logging-in for the first time. The answers to the security questions should be validated by the VMS in case the user wants to change the password. The VMS should not allow using the last three passwords while selecting the new password. AXIS/ AVIGILON/ BOSCH/ HONEYWELL/MOBOTIX	Request to remove this feature as changing password option should be with Administrator to have better security	This feature is incorporated for a better security. A similar /better security feature for creating user and login feature for first time login is acceptable
8	SECTION IV- TECHNICAL SPECIFICATIONS	V. APPROVED MAKES - CCTV CAMERAS	Please include PELCO & VIVOTEK CAMERAS also, these products are better than HONEYWELL. Also please note that AXIS/ AVIGILON/ BOSCH/ MOBOTIX are far superior than HONEYWELL. So we are requesting you to include PELCO & VIVOTEK also.		Refer amended approved makes in Addendum and as mentioned in answer to Bidder 1.

**Bidder 3**

Sl No.	Section	Clause No.	Bid Condition	Bidder's Queries	Reply to the query
1	Notice Inviting Tender, Section - I	Sl no. 2.1 (a)	The tenderer should be either an Original Equipment Manufacturer (OEM) or an Authorized Dealer of IP CCTV Security cameras.	Kindly include Authorized System Integrator/ Partner in addition to Authorised Dealer.	The system integrator can also participate in the Tender and should meet MQC and shall have duly executed MAF (Manufacturer Authorisation Form) for Cochin Port stating that they will support System Integrator with cameras and spares for at least 7 years
2	Notice Inviting Tender, Section - I	Sl no. 2.5	The authorized service centre shall be available in Kochi. The address of the Authorized service centre shall be furnished in the Technical bid.	Kindly modify to open the Service centre within 30 days of placing PO.	The Bidder/ OEM should have service centre in Kochi also with spares or otherwise should furnish an undertaking that they will open a service centre at Kochi within 30 days from date of LOA.

(5)

**Bidder 4**

SI No.	Section	Clause No.	Bid Condition	Bidder's Queries	Reply to the query
1	SECTION IV- TECHNICAL SPECIFICATIONS	V. APPROVED MAKES -CCTV CAMERAS & VMS	CCTV : AXIS/ AVIGILON/ BOSCH/ HONEYWELL/ MOBOTIX VMS : ALGOVISION / GENETEC / MILESTONE/ VIDEONETICS	Need to be Consider the "Made in India" Brands for Major Components Cameras, VMS & Others	Reputed brands selected for camera and VMS, which have satisfactory performance in field. Made in India brands for accessories can be accepted, subject to submission of test certificates, credentials and acceptance of Engineer-in-charge Tender Condition Prevails.
2	SECTION - I NOTICE INVITING TENDER	SI no. 2.5	All items shall be UL Certified products. UL Certificates to be enclosed along with the supply.	Kindly Consider Either the UL or CE Certification, since Manufacturing standards are similar for both Certification, Except the Origin of the Products and it belongs to the Manufacturer	

**Bidder 5**

SI No.	Section	Clause No.	Bid Condition	Bidder's Queries	Reply to the query
1	SECTION IV- TECHNICAL SPECIFICATIONS		Technical specifications	We request you to please add the specifications mentioned in Blue Color in the attached excel sheets to incorporate in the tender. Also please include additional specs given below	The specifications mentioned in the Bid Document is the minimum requirement and you can offer better specifications at competitive rates.

**Bidder 6**

SI No.	Section	Clause No.	Bid Condition	Bidder's Queries	Reply to the query
1	SECTION - I NOTICE INVITING TENDER	Minimum Qualifying Criteria SI no. 2.1 (a)	The tenderer should be either an Original Equipment Manufacturer (OEM) or an Authorized Dealer of IP CCTV Security cameras.	We are a system integrator based from Kochi. We are also pleased and glad to inform you that we as an integrator have been the AMC vendor for COPT, as well as supplier. We have found that Samsung/ Wisenet, currently known as	Same reply to SI.No.1 of Bidder 3 is applicable.

						Hanwha, has not been included. We request to include the same as the performance of the camera and the support from the OEM was recommendable and exceptionally good	
<b>Bidder 7</b>							
<b>SI No.</b>	<b>Section</b>	<b>Clause No.</b>	<b>Bid Condition</b>	<b>Bidder's Queries</b>	<b>Reply to the query</b>		
1	SECTION - I NOTICE INVITING TENDER	Sl no. 2.1 (a)	The tenderer should be either an Original Equipment Manufacturer (OEM) or an Authorized Dealer of IP CCTV Security cameras.	Kindly change into OEM or Authorized Reseller	Same reply to SI.No.1 of Bidder 3 is applicable.		
2	SECTION - I NOTICE INVITING TENDER	Sl no. 2.1 (b)	In the case of Authorized Dealer, valid dealership certificate shall be furnished along with the Technical Bid	Kindly change into Valid MAF shall be furnished	Valid MAF executed for Cochin Port valid for at least 7 years		
3	SECTION IV- TECHNICAL SPECIFICATIONS	V. APPROVED MAKES - NETWORK SWITCHES	ALLIED TELISIS / CISCO / HP / JUNIPER / NETGEAR	Kindly Add Quantum networks also in the Approved makes, since this an make in India Product and having many Govt. references . Product details attached	Amended makes mentioned in Addendum prevails		
<b>Bidder 8</b>							
<b>SI No.</b>	<b>Section</b>	<b>Clause No.</b>	<b>Bid Condition</b>	<b>Bidder's Queries</b>	<b>Reply to the query</b>		
1	SECTION IV- TECHNICAL SPECIFICATIONS	V. APPROVED MAKES - CCTV CAMERAS & NETWORK SWITCHES	CCTV : AXIS/ AVIGILON/ BOSCH/ ONEYWELL/MOBOTIX NETWORK SWITCHES : ALLIED TELSIS / CISCO / HP / JUNIPER / NETGEAR	Kindly add Infinova for Cameras and TP-Link for Switches as the Preferred List of vendors for this Project	Amended makes mentioned in Addendum prevails		
2	II. INSTRUCTION TO TENDERERS 8.4	Bid Prices	Evaluation of price for Comprehensive AMC for 5 years will be carried out at the Discounted Factor of 7%	Kindly define the point	Please see BOQ last page. The AMC rates of each year will be multiplied by the following factors and brought to the Net Present Value(NPV) and added to the quoted value for SITC work		



3	SECTION IV TECHNICAL SPECIFICATIONS	I.3 SCOPE OF WORK	The VMS offered shall support upto 500 cameras with adequate capacity video management server, camera recording server and hard disks for recording live videos upto 90 days. In the estimated rates, license for 200 cameras for 5 years is included. No failover for Servers considered but provision for providing failover is there in the Server. The Tenderer shall consider all the above and quote accordingly.	Failover Server Required?	and L1 offer arrived. 3rd year rates will be multiplied by 0.8163, 4th year by 0.7629, 5th year by 0.7130, 6th year by 0.6663 and 7th year by 0.6627 and added to SITC amount Failover Server not Required. But the VMS offered shall support upto 500 cameras. In the present tender, license for 200 cameras may be included considering the immediate future requirement of cameras
4	SECTION IV TECHNICAL SPECIFICATIONS	IV. ANNUAL MAINTENANCE CONTRACT		CAMC should be included for existing system?	CAMC not needed for the existing cameras.
5				Make In India purchase preference considering for BOQ?	Yes, but with all compliance given in the Tender specification.
6	Section-I Notice Inviting Tender	MQC 2.3(ii)	Enhancement factors as per table given below will be used for the costs of works executed for bringing the financial figures to a common base value in respect of the works completed in past years.	Kindly define Page no-2 MQC 2.3(ii)-Enhancement Factor	In order to ascertain MQC compliance, the work order value submitted for MQC compliance will be checked and multiplied by the enhancement factor, so as to bring all at a common level ie. Present year
7	Section-I Notice Inviting Tender	MQC 2.5	The authorized service centre shall be available in Kochi	As per GEM T&C if seller don't have registered address, they have to arrange within 30days, kindly confirm	Same reply to query No.2 of Bidder 3
8	SECTION IV TECHNICAL SPECIFICATIONS	I.3 SCOPE OF WORK	The VMS offered shall support upto 500 cameras with adequate capacity video management server, camera	VMS asking for 500 licences, please define why require? 37+46=83 no. at	200 Nos. Licenses mentioned is considering immediate future requirement. But the VMS shall

			recording server and hard disks for recording live videos upto 90 days. In the estimated rates, license for 200 cameras for 5 years is included. No failover for Servers considered but provision for providing failover is there in the Server. The Tenderer shall consider all the above and quote accordingly.	present	support upto 500 cameras
9	SECTION IV TECHNICAL SPECIFICATIONS	DETAILS OF EXISTING CAMERAS	Back up of existing cameras is available for 90 days at CISF CONTROL ROOM. At CFS only 30 days	Back up of existing cameras is available for 90 days at CISF CONTROL ROOM. At CFS only 30 days. We have to change the storage increase storage capacity from 30 days to 90 days for CFS block or not?	The CISF control room & CFS area are at 2 different locations. The HDD capacity shall be enhanced so that the backup of all cameras including present ones are available for 90 days. Yes.
10	SECTION IV TECHNICAL SPECIFICATIONS	2. OUTDOOR TYPE PTZ CAMERA	IR illumination : 500 Mtr or better	IR Illumination asked 500 m. As per standards 2 MP PTZ comes with 300m IR. Kindly change it	Tender Conditions prevail
11	SECTION IV TECHNICAL SPECIFICATIONS	IV. ANNUAL MAINTENANCE CONTRACT	Upon written intimation/ intimation over telephone of a complaint/ defect (during the guarantee/ warranty/ AMC period), the contractor should send representative(s) to attend the defects immediately, but not later than 2 hours. If the equipment become nonfunctional beyond the period of 12 hours due to delay in rectifying the defect, proportionate deduction on pro rata basis shall be effected from the running bill of the contractor on AMC charges.	Manpower required during Warranty + CAMC period?	The complaints should be attended / rectified within 2 hours of intimation over telephone/ mail/ whatsapp during the Guarantee and CAMC periods.
12	SECTION VII BILL OF QUANTITY	ITEM NO. 21 & 24	800 VA/ 2000 VA UPS With Inbuilt Battery	How much UPS backup time require?	At least 1 hour. SPEC of UPS attached

<p>13</p> <p>SECTION IV TECHNICAL SPECIFICATIONS</p>	<p>I. SCOPE OF WORK</p>	<p>The new cameras, VMS etc. shall be compatible with the existing systems and images shall be viewable locally at the ATM's room inside CFS and at the 7<sup>th</sup> floor of the New Administrative Building.</p>	<p>We have to install new setup at same existing building or at different place? If yes, kindly define the distance b/n them?</p>	<p>The CCTV monitors and NVRs of the existing cameras are installed in the 7<sup>th</sup> floor of the New Ad. Bldg. We propose to install the new server in the fifth floor of the same building and monitor it in the 7<sup>th</sup> floor control room</p>
<p><b>Bidder 9</b></p>				
<p>SI No.</p>	<p>Section</p>	<p>Clause No.</p>	<p>Bid Condition</p>	<p>Reply to the query</p>
<p>1</p>	<p>Notice Inviting Tender, Section - I</p>	<p>Minimum Qualifying Criteria SI no. 2.5</p>	<p>The authorized service center shall be available in Kochi. The address of the Authorized service center shall be furnished in the Technical bid</p>	<p>Same reply to query No.2 of Bidder 3</p>
<p>2</p>	<p>SECTION IV TECHNICAL SPECIFICATIONS--&gt; III. TECHNICAL SPECIFICATIONS --&gt; I. OUTDOOR BOX MOTORIZED VF IR CAMERA</p>	<p>1. Image sensor</p>	<p>1/2" progressive scan CMOS /CCD or better</p>	<p>The idea of having 1/2" Sensor for this particular camera is to have more light entering into the lens to have better image quality as this camera is going to be installed in varying ambient lighting conditions in critical locations. Our expectation is to have size better than 1/2". Please consider as 1/2" CMOS or better.</p>
<p>3</p>	<p>SECTION IV TECHNICAL SPECIFICATIONS--&gt; III. TECHNICAL</p>	<p>3. Minimum Illumination / Light Sensitivity</p>	<p>Colour: 0.08 lux, at 50 IRE F1.6 B/W: 0.02 lux, at 50 IRE F1.6</p>	<p>Ambient lighting conditions are varying and the cameras are proposed to be installed in critical locations, which demand the prescribed minimum illumination.</p>

**Bidder's Queries**

- 1) Kindly provide clarification on whether the service center is designated for the OEM or the Bidder.
- 2) In the case that it is intended for the OEM, we kindly request that you consider the inclusion of a "Service center in South India." This would enable numerous potential OEMs to partake and ensure fair opportunities in the tender process

Request to relax, and allow the sensor size parameter in the range of 1/2" to 1/3" . It is important to note that the sensor size is not the sole factor influencing imaging quality. There are various other parameters that contribute to producing images of forensic significance.

Kindly consider permitting a relaxation in the minimum Illumination parameter to fall within the range of 0.05 lux to 0.18

<p>SPECIFICATIONS --&gt; 1. OUTDOOR BOX MOTORISED VF IR CAMERA</p>			<p>lux. Slight adjustments in the lux levels will not impact the functionality significantly. Additionally, as the camera specification includes IR, there will be no loss in forensic value during dusk or dawn, thereby enabling numerous potential OEMs to participate</p>	<p>Hence tender conditions prevail</p>
<p>4 SECTION IV TECHNICAL SPECIFICATIONS- -&gt; III. TECHNICAL SPECIFICATIONS --&gt; 1. OUTDOOR BOX MOTORISED VF IR CAMERA</p>	<p>7.IR illumination</p>	<p>50 Metres or better</p>	<p>Request to relax, and allow the IR illumination range parameter in the range of 40m or better, As per the focal lengths range mentioned in the tender, even at full tele it is not possible to achieve the Recognition and Identification at more than 20-25m, so 40m or better can be a fair parameter to allow many potential OEM participation and to achieve functional requirement.</p>	<p>We need a minimum of 50 mtrs IR range to be covered in low light illumination. Anything lesser than that will not suffice our requirement. Hence tender conditions prevail</p>
<p>5 SECTION IV TECHNICAL SPECIFICATIONS- -&gt; III. TECHNICAL SPECIFICATIONS --&gt; 2. OUTDOOR TYPE PTZ CAMERA</p>	<p>16.IR illumination</p>	<p>500 Mtr or better</p>	<p>Request to relax, and allow the IR illumination range parameter in the range of 400m or better, to allow many potential OEM participation.</p>	<p>We need a minimum of 500 mtrs IR range to be covered in low light illumination as the location identified for the PTZ camera is to have long range visibility. Anything lesser than that will not suffice our requirement. Hence tender conditions prevail</p>
<p>6 SECTION IV TECHNICAL SPECIFICATIONS- -&gt; III. TECHNICAL SPECIFICATIONS</p>	<p>7.Video Streams</p>	<p>1920 x 1080@120 FPS(2 MP)</p>	<p>Request to relax, and allow the FPS range parameter in the range of 50/60 fps or better. Capturing high-speed vehicles (over 150 Kmph) on highways is</p>	<p>We cannot compromise on the detailing of the vehicle number plate. Hence we require a higher frame rate. Minimum requirement is 120fps. Hence tender conditions prevail</p>

<p>7</p> <p>--&gt; 3. OUTDOOR TYPE ANPR / ZOOM TYPE BOX CAMERA</p> <p>SECTION IV TECHNICAL SPECIFICATIONS--&gt; III. TECHNICAL SPECIFICATIONS --&gt; 4. INDOOR TYPE FISH EYE CAMERA</p>	<p>Digital Image Stabilization</p>	<p>Off / On</p>	<p>achievable with a 50/60 fps range. Given that the requirement pertains to on premises settings 50/60 fps suffices and 120 fps is excessive for this particular application.</p> <p>Request to relax, and remove this parameter. Image stabilization is necessary when there is vibration caused by the camera mount or pole in outdoor. However, since these are indoor cameras that are typically mounted on walls or ceilings, which do not induce any vibration, this feature does not provide any value in this application. By relaxing this requirement, it will open up opportunities for many potential OEMs to participate..</p>	<p>We require provision of Digital Image Stabilization for crisper image of the video. Hence tender conditions prevail</p>
<p>8</p> <p>SECTION IV TECHNICAL SPECIFICATIONS--&gt; III. TECHNICAL SPECIFICATIONS --&gt; 4. INDOOR TYPE FISH EYE CAMERA</p>	<p>Defog</p>	<p>Off / Auto / Manual</p>	<p>Request to relax, and remove this parameter. Defog is typically necessary in outdoor settings where environmental conditions fluctuates. However, since these are indoor cameras operating in a stable environment, the defog feature does not provide any significant benefit. By removing this parameter, it will open up opportunities for potential OEMs to participate.</p>	<p>In coastal conditions, mist/moisture are prone to form. So this feature is necessary. Hence tender conditions prevail</p>

<b>Bidder 10</b>					
<b>SI No.</b>	<b>Section</b>	<b>Clause No.</b>	<b>Bid Condition</b>	<b>Bidder's Queries</b>	<b>Reply to the query</b>
	V. APPROVED MAKES	CCTV CAMERAS	CCTV : AXIS/ AVIGILON/ BOSCH/ HONEYWELL/MOBOTIX	Request for including PANASONIC as Camera OEM Panasonic CCTV camera models are globally accepted as highly reliable in mission critical environment.	Amended makes mentioned in Addendum prevails
<b>Bidder 11</b>					
<b>SI No.</b>	<b>Section</b>	<b>Clause No.</b>	<b>Bid Condition</b>	<b>Bidder's Queries</b>	<b>Reply to the query</b>
1	SECTION IV TECHNICAL SPECIFICATIONS--> III. TECHNICAL SPECIFICATIONS --> 1. OUTDOOR BOX MOTORISED VF IR CAMERA	Page 33	OUTDOOR BOX MOTORISED VF IR CAMERA	Kindly consider Varifocal motorized camera here so that multiple OEM can participate ; many OEMs does not have motorized lens box camera	Reply to the query Motorized Bullet Camera is also acceptable
2	SECTION IV TECHNICAL SPECIFICATIONS	Page 34	Cyber security - OEM shall have STQC/ VAPT certifications.	Kindly remove this from here and consider MMI level 5 and GDPR so that other can also participate	Tender Conditions prevail.
3	SECTION IV TECHNICAL SPECIFICATIONS	Page 34	Chipset/Processor - From same OEM	Kindly remove this line so that other OEMs can participate	This is required to ensure that No Vulnerability is carried out through Chipset. Hence Tender Condition prevails.
4	SECTION IV TECHNICAL SPECIFICATIONS	Page 34	Housing - IP67, NEMA 4X and IK10 rated casing	This certification is basically used in explosive proof cameras, so please remove it so that other OEMs can participate	Considering our site conditions, we require this rating. Hence tender conditions prevail.

137

5	SECTION IV TECHNICAL SPECIFICATIONS	Page 34	Certifications : CE, FCC, UL	UL is a international certificate we are mention atmanirbhar bharat so please consider BIS here which is equivalent to UL	Tender conditions prevail.
6	SECTION IV TECHNICAL SPECIFICATIONS - 1. OUTDOOR ANPR / ZOOM TYPE BOX CAMERA	Page no. 37, Sr. No. 7:	Video streams :1920 x 1080@120 FPS(2 MP)	kindly change 120fps to 90fps so that multiple OEMs can participate here	We cannot compromise on the detailing of the vehicle number plate. Hence we require a higher frame rate. Minimum requirement is 120fps. Hence tender conditions prevail.
7	SECTION IV TECHNICAL SPECIFICATIONS - 1. OUTDOOR ANPR / ZOOM TYPE BOX CAMERA s	Page no. 38, Sl. No. 26:	Cyber security - OEM shall have STQC/VAPT certifications.	kindly remove this from here and consider CMMI level 5 and GDPR so that other can also participate	Tender conditions prevail.
<b>Bidder 12</b>					
<b>SI No.</b>	<b>Section</b>	<b>Clause No.</b>	<b>Bid Condition</b>	<b>Bidder's Queries</b>	<b>Reply to the query</b>
1	2. Minimum Qualification Criteria(MQC)	2.5.	The authorized service center shall be available in Kochi. The address of the Authorized service center shall be furnished in the Technical bid.	1) Kindly provide clarification on whether the service center is designated for the OEM or the Bidder. 2) In the case that it is intended for the OEM, we kindly request that you consider the inclusion of a "Service center in South India." This would enable numerous potential OEMs to partake and ensure fair opportunities in the tender process.	Same reply to query No.2 of Bidder 3

2	SECTION IV TECHNICAL SPECIFICATIONS--> III. TECHNICAL SPECIFICATIONS --> 1. OUTDOOR BOX MOTORIZED VF IR CAMERA	1. Image sensor	1/2" progressive scan CMOS /CCD or better	Request to relax, and allow the sensor size parameter in the range of 1/2" to 1/3". It is important to note that the sensor size is not the sole factor influencing imaging quality. There are various other parameters that contribute to producing images of forensic significance.	The idea of having 1/2" Sensor for this particular camera is to have more light entering into the lens to have better image quality as this camera is going to be installed in varying ambient lighting conditions in critical locations. Our expectation is to have size better than 1/2". Please consider as 1/2" CMOS or better.
3	SECTION IV TECHNICAL SPECIFICATIONS--> III. TECHNICAL SPECIFICATIONS --> 1. OUTDOOR BOX MOTORIZED VF IR CAMERA	3. Minimum Illumination / Light Sensitivity	Colour: 0.08 lux, at 50 IRE F1.6 B/W; 0.02 lux, at 50 IRE F1.6	Kindly consider permitting a relaxation in the minimum Illumination parameter to fall within the range of 0.05 lux to 0.18 lux. Slight adjustments in the lux levels will not impact the functionality significantly. Additionally, as the camera specification includes IR, there will be no loss in forensic value during dusk or dawn, thereby enabling numerous potential OEMs to participate	As indicated in the previous point, ambient lighting conditions are varying and cameras are proposed to be installed in critical locations, which demand the prescribed minimum illumination. Hence, tender condition prevails.
4	SECTION IV TECHNICAL SPECIFICATIONS--> III. TECHNICAL SPECIFICATIONS --> 1. OUTDOOR BOX MOTORIZED VF IR CAMERA	7. IR illumination	50 Metres or better	Request to relax, and allow the IR illumination range parameter in the range of 40m or better, As per the focal lengths range mentioned in the tender, even at full tele it is not possible to achieve the Recognition and	We need a minimum of 50 mtrs IR range to be covered in low light illumination. Anything lesser than that will not suffice our requirement. Hence, tender condition prevails.



				<p>Identification at more than 20-25m, so 40m or better can be a fair parameter to allow many potential OEM participation and to achieve functional requirement.</p>	
5	SECTION IV TECHNICAL SPECIFICATIONS--> III. TECHNICAL SPECIFICATIONS --> 2. OUTDOOR TYPE PTZ CAMERA	16.IR illumination	500 Mtr or better	Request to relax, and allow the IR illumination range parameter in the range of 400m or better, to allow many potential OEM participation.	Tender condition prevails.
6	SECTION IV TECHNICAL SPECIFICATIONS--> III. TECHNICAL SPECIFICATIONS --> 3. OUTDOOR TYPE ANPR / ZOOM TYPE BOX CAMERA	7.Video Streams	1920 x 1080@120 FPS(2 MP)	Request to relax, and allow the FPS range parameter in the range of 50/60 fps or better. Capturing high-speed vehicles (over 150 Kmph) on highways is achievable with a 50/60 fps range. Given that the requirement pertains to on premises settings 50/60 fps suffices and 120 fps is excessive for this particular application.	Vehicles moving in faster speed are expected in Various scenarios in the port. We cannot compromise on the detailing of the vehicle number plate. Hence we require a higher frame rate. Minimum requirement is 120fps. Hence, tender condition prevails.
7	SECTION IV TECHNICAL SPECIFICATIONS--> III. TECHNICAL SPECIFICATIONS --> 4. INDOOR TYPE FISH EYE CAMERA	Digital Image Stabilization	Off / On	Request to relax, and remove this parameter. Image stabilization is necessary when there is vibration caused by the camera mount or pole in outdoor. However, since these are indoor cameras that are typically mounted on walls or ceilings, which	We require provision of Digital Image Stabilization for crisper image of the video. Hence, tender condition prevails.

(16)

				do not induce any vibration, this feature does not provide any value in this application. By relaxing this requirement, it will open up opportunities for many potential OEMs to participate..	
8	SECTION IV TECHNICAL SPECIFICATIONS--> III. TECHNICAL SPECIFICATIONS --> 4. INDOOR TYPE FISH EYE CAMERA	Defog	Off / Auto / Manual	Request to relax, and remove this parameter. Defog is typically necessary in outdoor settings where environmental conditions fluctuates. However, since these are indoor cameras operating in a stable environment, the defog feature does not provide any significant benefit. By removing this parameter, it will open up opportunities for potential OEMs to participate.	In coastal conditions, mist/moisture are prone to form. So this feature is necessary. Hence, tender condition prevails.
<b>Bidder 13</b>					
<b>SI No.</b>	<b>Section</b>	<b>Clause No.</b>	<b>Bid Condition</b>	<b>Bidder's Queries</b>	<b>Reply to the query</b>
1	Notice Inviting Tender, Section - I	Minimum Qualifying Criteria SI no. 2.1 (a)	The tenderer should be either an Original Equipment Manufacturer (OEM) or an Authorized Dealer of IP CCTV Security cameras.	Kindly specify whether system integrators could participate in the tender by submitting MAF from the OEM	Same reply to SI.No.1 of Bidder 3 is applicable.
2	SECTION IV TECHNICAL SPECIFICATIONS	CLAUSE V. APPROVED MAKES	BOQ - Item no. 15 - Lightning Arrestor	Recommended make of item and specification	Refer approved makes in Addendum

3	SECTION VII BILL OF QUANTITIES	CLAUSE V. APPROVED MAKES	BOQ - Item no. 21 – 800 VA UPS with inbuilt battery	Recommended make of item	Refer approved makes in Addendum
4	SECTION VII BILL OF QUANTITIES	CLAUSE V. APPROVED MAKES	BOQ - Item no. 24 – 2000 VA UPS with inbuilt battery	Recommended make of item	Refer approved makes in Addendum
5	SECTION VII BILL OF QUANTITIES	CLAUSE V. APPROVED MAKES	BOQ -Item no. 31 – Central Video and Database Management Server	Recommended make of item	Refer approved makes in Addendum
6	SECTION VII BILL OF QUANTITIES	CLAUSE V. APPROVED MAKES	BOQ -Item no. 32 – Camera Recording Server or NVR:AXIS/ AVIGILON/ BOSCH/ HONEYWELL/MOBOTIX	Recommended make of item	Same make of Camera Refer approved makes in Addendum
7	SECTION VII BILL OF QUANTITIES	CLAUSE V. APPROVED MAKES	BOQ -Item no. 33 – 18TB HDD	Recommended make of item	Refer approved makes in Addendum
8	SECTION VII BILL OF QUANTITIES	CLAUSE V. APPROVED MAKES	BOQ - Item no. 21 & 24 – 800 & 2000 VA UPS with inbuilt battery	Backup time for the UPS	At least 1 hour
9	SECTION VII BILL OF QUANTITIES		BOQ -Item no. 13 – Polycarbonate Junction Box	The dimension of item is not mentioned	Separate sheet attached
10	SECTION VII BILL OF QUANTITIES		BOQ -Item no. 26 - P2P link for the wireless communication	The make and detailed specification is not mentioned in document	Separate sheet attached
11	SECTION VII BILL OF QUANTITIES			The specification of lightning arrester (item no. 15) and Earthing Strip with Required Links and Earthing Compound (item no. 16) not mentioned	Separate sheet attached
12	SECTION VII BILL OF QUANTITIES			The details of 32U Rack & 6U rack (Item no. 39,9) regarding the dimension, mounting and other specification is not mentioned	Separate sheet attached
13	SECTION VII BILL OF QUANTITIES			The detailed	Separate sheet attached

	specifications of Switches and SFP modules (Item no. 10,11, 12,35,36,37) to be given			Separate sheet attached
14	SECTION VII BILL OF QUANTITIES			Same reply to Sl.No.3 of Bidder 8 is applicable.
15				In the technical specifications, sl.no 8 (specification of rack mount recorder) :- It is mentioned that " bidder shall consider 200 numbers of camera license , which shall be allocated to VMS ". In the technical specifications, sl.no 5 (Video management software) :- It is mentioned that " 4.5 ) The vms should support at least 500 cameras or encoders from different OEM. Kindly clarify
16	(page no. 9 of 87)	Point no. 8 Bid Prices	Evaluation of price for Comprehensive AMC for 5 years will be carried out at the Discounted Factor of 7%	Same reply to Sl.No.2 of Bidder 8 is applicable.
17				The CAMC Amount is to be entered in BOQ price schedule

V Prasadudhin 13/12/24  
 CHIEF MECHANICAL ENGINEER  
 5/5/2024  
 5/3

**ADDENDUM / AMENDMENTS TO TENDER DOCUMENT**

1. The Minimum Qualification Criteria(MQC), Clause 2.1 Experience (a) is amended as follows:

- a) The Tenderer should be either an Original Equipment Manufacturer (OEM) or an Authorized Dealer / System Integrator of IP CCTV Security cameras. The Authorised Dealer/ System integrator should meet MQC.

2. **Amended approved makes**

CCTV CAMERA	AXIS/ AVIGILON/ BOSCH/ / HONEYWELL EQUIP or 70 series / PELCO / HANWHA TECHWIN / PANASONIC I-PRO
VMS	AVIGILON/AXIS/ BOSCH/ MOBOTIX/ SONY
WORK STATION/ PC	DELL/ LENOVO/ HP
NETWORK SWITCH / SFP MODULE /	ALLIED TELISIS / CISCO / HP / JUNIPER
NETWORK/ OUTDOOR RACK	PRESIDENT / RITTAL / NETRACK
SURGE PROTECTOR	APC/DHEN/ CAPE ELECTRIC/OBO BETTERMANN/ L&T
OFC / CAT 6 CABLE	MOLEX / COMSCOPE/ PANDUIT/ LEGRAND/ FINOLEX
PVC CONDUIT	BALCO/ ATUL/ GEO/ CLIPSAL/ PRECISION/ AVON PLAST/ KONSEAL/HIGH COUNT
HDPE PIPE	"KONTOUR" OR ANY OTHER MAKE WITH BIS SPECIFICATION
POWER CABLE	FINOLEX/ Q FLEX/ RR KABEL/ RPG CABLES/ LAPP KABEL/ V-GUARD/ HAVELLS/ L&T/ KEI/ RALLISON
MCB'S, SWITCHES, ADAPTORS ETC	LEGRAND / MERLIN GERIN/MK/ ABB/ GE POWER / HAVELLS/ HPL/ SIEMENS/ L&T/ MDS/ INDOASIAN
LED MONITOR	SONY/ PANASONIC/ SAMSUNG/ PHILIPS/ LG
LIGHTNING ARRESTOR	APC/DHEN/ CAPE ELECTRIC/OBO BETTERMANN/ L&T
600 VA /2000 VA UPS WITH INBUILT BATTERY	FUJI/HYKON/VERTIV/NUMERIC / DB POWER/ TATA LIEBERT / NUMERIC/ SAFE POWER/ APC/GE / VGUARD/ EXIDE
CAMERA RECORDING SERVER OR NVR	AVIGILON/AXIS/ BOSCH/ MOBOTIX,/ SONY
CENTRAL VIDEO AND DATABASE MANAGEMENT SERVER	HP/ BOSCH/ DELL/LENOVO/ SONY
HARD DISK	WD/SEAGATE

## 3. ADDITIONAL TECHNICAL SPECIFICATIONS

NO.	DESCRIPTION OF ITEM	
1	<b>4/8-port POE+ Switch With 2 SF PORT</b>	
	<b>Specification</b>	
	Interfaces	Minimum 4 X 10/100/1000 Mbps ports with 2x1G SFP
	PoE Budget	55 watts
	IEEE	802.3af/802.3at
	<b>Performance</b>	
	Switching Capacity	20Gbps
	Mac address Table	8K
	Vlans	64
	Packet buffer memory	512kb
	CPU Memory	128MB DDR RAM
	Flash Memory	32MB
	Jumbo Frame	10k
	Management	Supports IPv6 Management
		• web Based Graphical User Interface
	Environmental	Switch should have operating temperature range of 0-40C in continuous operation
	Certifications	UL, CE/FCC
	Warranty	3 year Warranty
2	<b>24-port 1/10G Base-X Layer-3 Stackable Managed Switch.</b>	
	<b>Physical Interfaces</b>	2 # 1/10G Base-T Copper Ports(shared)
		24 # 1/10G Base-X Fiber SFP Ports
		Ethernet: Out-of-band 1G port, Console: RJ45,
		Console: Mini-USB, Storage: USB
	<b>CPU/ Memory</b>	CPU: 800 MHz
		RAM: 1 GB
		Packet buffer memory: 32 MB
		Flash: 256 MB
	<b>Environmental</b>	Operating Temperature: 0° to 40°C)
	<b>Certifications</b>	UL,CE,FCC
	<b>Warranty</b>	3 year Warranty
3	<b>24-port 1000base-T Gigabit PoE+ Smart Switch</b>	
	<b>Physical Specifications</b>	24 # 10/100/1000 Base-T auto-sensing PoE+
		ports and 4 dedicated 100/1000 Base-X Fiber SFP
		ports
	<b>Performance Specification</b>	Bandwidth: 56 Gbps non-blocking or above
		Forwarding rate: 41mpps or more
		MAC Address database size: 16 media access
		control (MAC) addresses or more
		VLAN: 256 or above
		Packet buffer: 1.5Mb or above
		Jumbo frame: 9216
		PoE budget: 190W or more

	<b>Certifications</b>	UL,CE/FCC
	<b>Warranty</b>	3 year Warranty
4	<b>24-port 1000base-T Gigabit Smart Switch</b>	
	<b>Physical Specifications</b>	24 # 10/100/1000 Base-T auto-sensing ports and 2 dedicated 100/1000 Base-X Fiber SFP ports
	<b>Performance Specification</b>	Bandwidth: 52 Gbps non-blocking or above
		MAC Address database size: 16 media access control (MAC) addresses or more
		VLAN: 256 or above
		Packet buffer: 2MB or above
		Jumbo frame: 9216
		Multicast groups: 512
		Mac: 16k or more
	<b>Certifications</b>	UL,CE/FCC
	<b>Warranty</b>	3 year Warranty
5	<b>SFP module</b>	
	1G Single Mode Duplex SFP module with 3 year warranty.	
6	<b>P2P Point to point Wireless Connectivity</b>	
	<b>Antenna Type</b>	Omni directional/Flat Panel
	<b>Antenna Gain</b>	19 dBi
	<b>Antenna Beamwidth</b>	3 dB - 14.5°/3 dB - 12.5°
	<b>Environmental</b>	IP67
	<b>Temperature</b>	-30°C to 60°C
	<b>Wind Survival</b>	200 km/h (124 mph)
	<b>Certifications</b>	CE ,FCCID
7	<b>800va/1 kva Ups with INBUILT BATTERY</b>	
	<b>Input</b>	220/230 vac
	<b>Voltage</b>	140-300 vac
	<b>Frequency Range</b>	50 hz
	<b>Output</b>	
	<b>A/c Voltage Regulation</b>	+/-10%
	<b>Waveform</b>	Simulated Sine Wave
	<b>Transfer Time</b>	4-8 ms
	<b>Battery</b>	12 vdc@ 28 ah
8	<b>2 kva Ups with INBUILT BATTERY</b>	
	<b>Input</b>	220/230 vac
	<b>Voltage</b>	160-300 vac
	<b>Frequency Range</b>	50-60 hz
	<b>Output</b>	
	<b>A/c Voltage Regulation</b>	+/-10%
	<b>Waveform</b>	Sinusoidal
	<b>Battery Voltage</b>	96vdc

9	Lightning Arrestor	
		1 meter Copper Alloy based lightning Arrestor, clamp, wire with Graphite based chemical compound earthing and min 250 microns copper bonded low carbon steel rod, Earthing strip of 25x3/6 mm
10	Outdoor POE in-line surge protector	
	Standards compliance:	IEC 61643-21/ EN 61643-21 / UL497B IEEE 802-3af/3at/3bt/ ANSI/TIA-568-C.1
	Certification:	UL
	Technology:	GDT/ diode
	Network:	POE
	Max. DC operating voltage	: 60 Vdc - 650 mA
11	Type 2 DC surge protector - 30 V	
	Standards compliance:	IEC 61643-11 / prIEC 61643-41
	Remote signaling of disconnection:	output on NC contact
	Max. DC operating voltage:	30 Vdc
	Max. discharge current	3 kA
	Admissible short-circuit current:	10 000 A
12	Rack /Poly Carbonate Box	
		The lockable Metal door at the front and the rear ends are closed. With required fittings to fix it on a wall/pole
		It can be used as Pole-Mount or Wall-Mount.
		IP65 Certified Weatherproof Rack
		Minimum Dimension (600mm x 200 mm x 170 mm)
		The tenderer should consider the applicable size of each Outdoor Box / Rack as per the site. Rack/box should accommodate with all active and passive products required with neat and tidy arrangement