

NOTICE INVITING BUDGETORY OFFERS

Name of Work	NAME OF WORK : “ Providing 3 Nos. IP based Outdoor CCTV Cameras at CISF Kote.
Date of submission of budgetary quotation	On or Before 24.08.2023 at 11:00 Hrs.
Address for communication:	Executive Engineer (E-HL), Mechanical Engineering Department, Mormugao Port Authority, Electrical Section, 1st Floor, Admin. Building, Headland sada Vasco-de-Gama Goa - 403804
Contact Details	Phone : (0832) 2594241, 2594244 Email : xene.mgpt@gmail.com
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**EXECUTIVE ENGINEER (E-HL)
MORMUGAO PORT AUTHORITY**

MORMUGAO PORT AUTHORITY
ENGINEERING MECHANICAL DEPARTMENT

CME/XEN(E-HL)/M-22/

.08.2023

Sub: “Providing 3 Nos IP based outdoor CCTV Cameras at CISF Kote.

Ref:- Budgetary Quotation No. CME/XEN(E-HL)/M22/BQ3

Mormugao Port Authority intends to carry out the work of “Providing 3 Nos IP based outdoor CCTV Cameras at CISF Kote”. As such, kindly furnish the budgetary quotation for the same (Scope of work enclosed as Schedule - 'A' and Price Schedule enclosed as Schedule - 'A1'.

Your budgetary quotation should reach to this office on or before 24.08.2023.

Thanking you,

Yours sincerely,

EXECUTIVE ENGINEER (E-HL)

Technical specification

1.0. General :

Mormugao Port Authority intends to take up the work of “Providing 3 Nos IP based outdoor CCTV Cameras at CISF Kote”. The work involves supply, installation, testing and commissioning of complete CCTV surveillance system and transmission of live feed to desk top/LED TV. The entire system will be under guarantee period for a period of 01 year after handing over the system to Port.

2.0 Scope of Work:

Supply, Installation, testing & commissioning of outdoor IP cameras complete with housing and mounting kit and all other accessories Including Network Video Recorder, PoE switches, Junction Boxes, Supply and laying of CAT6 cable, PVC casing capping and providing live footage to desk top at CISF Control room.

- i) Supply, Installation testing, commissioning and handing over of 3 nos. of IP cameras (outdoor) 2MP complete with Camera housing and all other accessories including Camera Mounting structures.
- ii) Supply, Installation, testing, commissioning and handing over one no. of Network Video Recorder of 8 Channel complete with all accessories including necessary software for sharing the feed to desktop/screen at remote locations.
- iii) Supply, Installation, testing, commissioning and handing over of 1 no. of 8 port 100 mbps POE network switch.
- iv) Supply, Installation, testing, commissioning and handing over of 1 No. of 1KVA online UPS.
- v) Supply and laying CAT 6 indoor/outdoor Network Cable through PVC casing capping.
- vi) Configuration of all equipment as necessary including transmission/loading of designated Apps etc. to carry live feed to screen and providing 1 year on site support after completion of work.

3.0 Standards and Codes

The Fixed Cameras and Network Video Recorders shall comply with ONVIF standards and shall be UL/CE and FCC Certified. Each Camera shall be supplied along with accessories like Camera mounting GI Fixture with suitable base for Grouting.

4.0 Detailed Technical Specification

4.1 Supply, installation, testing and commissioning of IP fixed Bullet Cameras for Outdoor Duty

The Camera shall be Outdoor duty, 2MP, IP fixed bullet, complete with all accessories as per the technical specification given below.

Total sensor pixels	2 Megapixel
Sensor Type	1/2.7" (+/- 10%), Progressive Scan CMOS,
Lens	Fixed
Frame Rate	25/30fps (1920x1080)
Minimum Illumination(Color/Monochrome)	0.08Lux@F2.0@1/25s
Video functions	Digital zoom
	3DNR(Dynamic Noise Reduction)
	HLC and Backlight Compensation
	ICR (Auto Day night)
IR distance	20 meter
Input Voltage	Dc 12V and PoE with IEEE standard
Ingress Protection	IP66 by default without any adaptation
Video compression	H.264/MJPEG
Streaming Capacity	Two-Stream
ONVIF	ONVIF compliant
Certifications	UL/CE and FCC

Note: Cameras shall be supplied with suitable Power supply and its mounting arrangements as per site conditions i.e. wall / pole mount, with all required accessories & fitments. Each Cameras shall be provided with necessary additional circuits with Ethernet Surge Protectors to protect the units from High Voltages.

4.2 Supply, installation, testing and commissioning of Network Video Recorder 8 Channel

The proposed system shall be supplied with 8 channel NVR with necessary software to transmit live feed and shall be ONVIF compliant with following specifications.

No of Channels supported	8 channels
Power Input	12DC, 5A
Storage	Enterprise class Hard disk, 2 HDD slots and loaded 6 TB(6TBX1) HDD.
Support Image Format	H.264/MJPEG
Max number of cameras	8
Supported browser	OS windows 7/8/10
Alarm	Input- 8, Output - 4
External storage	USB port

Output	2 HDMI port
Network Interface	1 number of 10M/100M/1000M
ONVIF	ONVIF compliant
Certifications	UL/CE and FCC

NVR Shall be supplied with suitable video management software for parallel monitoring on PC, recorded images if required shall be downloaded in PC also. NVR shall support external storage device also for future expansion of storage systems. The system shall be supplied with power cord, Audio/Video cables, necessary software etc.

4.3 Supply and installation of 8 Port POE network switch

Supply and Installation of 8- port GbE Fast and Smart Managed PoE Switch with 100 Mbps Ethernet PoE Ports, 2 combo (RJ-45/SFP), PoE ports 130 watt or better, Switching 20 Gbps or better, Operating Temperature- 0 degree centigrade to 50 degree centigrade or better.

4.4 Supply and laying of CAT-6 cable

Supply and Laying of CAT-6 outdoor type UTP weather proof cable suitable for indoor/outdoor cameras (CCTVs), CAT 6 UTP Cable Transmission frequency of 250 MHz (Minimum) with following specifications.

- I. Conductor Diameter: 0.520mm Nominal
- II. Insulation Diameter: 0.940 mm Nominal
- III. Armoured with Insulation: HD-PE
- IV. Should be ISI Certified.

4.5 Supply and laying of Casing capping

Supply and Laying of PVC casing capping/ Conduit of suitable size to be fixed on wall (including with saddle, Gitti at sufficient distance with junction box, bend etc.). Cost is inclusive of the laying cost of CAT-6.

4.6 Supply and installation of 1 KVA Online UPS

The supply of 1KVA online UPS includes all materials required for the installation and commissioning at site to provide stable power supply. The UPS shall comply with following specifications.

Capacity	1KVA/900W
Input	
Phase	Single Phase with Ground

Voltage Range	110 - 300V AC \pm 5%
Frequency	50 Hz. \pm 5%
Output	
Voltage	230V \pm 5% single phase
Inverter Efficiency	> 85%`
Current THD	Less than 5%
Overload Capability	105%-110%: UPS shuts down after 10 minutes at battery mode or transfer to bypass when the utility is normal. 110%-130%:UPS shuts down after 1 minute at battery mode or transfer to bypass when the utility is normal. >130%: UPS shuts down after 3 seconds at battery mode or transfer to bypass when the utility is normal
Current crest Ratio	3:1
Transfer Time	
AC Mode to Battery	Zero
Inverter to Bypass	<4ms(typical 2.5ms)
Wave Form	Pure sine wave
Battery	
DC Voltage	36V DC/IB(3x7AH inside)
Type	SMF
Charge Current	1.5A - 9.5 A
Charging Current	2.0A/4.0A/6.0A/8.0A (Maximum) selectable via LCD setting
Environment	0-55 degree Celsius & 95% RH
Protection	i) Input AC Under / Over voltage ii) Out overload/short circuit iii) DC under/over voltage iv) Over temperature
Indication	LED /LCD
Management	
SMART RS-232 OR USB	Supports Windows 2000/2003/XP/Vista/2008/7/8, Linux, Unix, MAC
SNMP	Power Management from SNMP Manager and web Browser

4.7 Miscellaneous Items

Misc items, like saddles, fitting materials, screws, nuts, fasteners, jointers, sealants, RJ45, accessories, 3 core 1.5 sq.mm PVC flexible wire, 2 nos. 5A switch socket combined etc as required for the total commissioning, to be provided by the Contractor to commission the system successfully.

4.8 Remote Viewing facility

The Contractor shall make arrangement so that live streaming of 3 nos. cameras shall be made available on desktop / LED Monitor

The Contractor shall suitably train the Port's officials as mentioned above, to view the live streaming of cameras.

4.9 System Overview/ General Features:

- System capable to work for Day & Night operations (Automatic)
- All such locations where mounting structures and related accessories are required should be provided by the contractor within the cost quoted. Site survey should be undertaken.
- All equipment's should be suitable for 24 Hours duty cycle.
- All required equipment's mentioned/not-mentioned but required for smooth running of system is to be in outdoor weatherproof enclosure.
- **Viewing features:**
 - Adjust brightness, Contrast, Saturation & hue for a clearer view
 - Support digital zoom in to view specific areas

4.10 Installation & Commissioning

1. The Contractor shall carry the work as per the BOQ.
2. The Contractor shall commence and complete the work within 30 days from date of issue of LOA to the satisfaction of the Chief Mechanical Engineer or his representative. Necessary scaffolding and safety measures for entire erection shall be done by the contractor.
3. The Cameras, NVR and all the other equipments supplied shall be installed, tested, commissioned and handed over. The special tools instruments needed for regular servicing / maintenance working shall be supplied free of cost by the Contractor. All the materials required for the installation and commissioning at site including the materials for civil works required for Installation and commissioning of camera mounting structures shall be supplied by the Contractor. Misc items, like saddles,

fitting materials, switch, sockets, screws, nuts, fasteners, jointers, sealants, accessories, etc as required to run the system included in quote.

4. The work should be carried out with utmost precaution not to disrupt existing CCTV system in any way.
5. The installation of the various equipment's shall be carried as per the site conditions and as directed by the EIC. The Contractor shall carry out the works in co-ordination with the on-going AMC Contractor.
6. Special care may be taken to prevent any damage to the Port's property during installation and commissioning. The workmanship shall be neat, clean and elegant/ aesthetic in appearance and painting of brackets etc. to be done with Marine paint to withstand saline atmosphere prevailing in the area.
7. All the quantities indicated in the price schedule/BoQ are indicative. However, the work shall be carried out as per site conditions. Payment will be released as per actual executed quantities after completion of work.
8. **Technical brochures/ data sheets of Cameras, and NVR should be submitted with the tender specifically for models the tenderer intends to supply. Note:** Change in the location of cameras will be at the discretion of the Engineer.
9. Power and water will be provided by the Port on free of cost.

5 Manuals, Drawings

On completion of the work the Contractor shall supply 3 sets of operation and maintenance manuals after commissioning. The soft copy of all the as built drawings and manuals should also be provided which shall include General arrangement with principal details, Schematic line diagrams (SLD), and any other special features implemented in the system.

6 Tests

Relevant CE or UL certificate and ONVIF standards for Cameras and NVR etc shall be submitted along with materials to the satisfaction of the Chief Mechanical Engineer or his representative, failing which the materials will be rejected by Port.

7 Guarantee

The installation shall be guaranteed for 12 months from the date of acceptance and free maintenance shall be done during the guarantee period.

8 Maintenance During Guarantee Period.

1. The contractor shall provide one-year guarantee for the equipment's installed. The maintenance during guarantee period shall include replacement of all defective components of the system including the cameras.
2. During the one year guarantee period, the Port shall not bear any charges incurred by the contractor for deputing the skilled manpower or materials to carry out any form of repairs.
3. The Contractor shall arrange his own tools and tackles including ladder for carrying out the works during the installation and guarantee period.
4. During warranty period if any of the equipment supplied by the Contractor i.e camera, NVR etc. are found defective /Damaged, same has to be replaced by the Contractor at their cost. Therefore Bidders shall assess the environmental conditions, wind speed etc in respect to the supply of quality of equipment's and workman ship so as to ensure continual stability in running of system successfully. The bidder shall maintain basic inventory of required spares for upkeep of the CCTV Camera Surveillance systems during the warranty period.
5. In case need arises, the technicians should be present after office hours and during holidays without any cost and liability to the Port. The tenderer shall provide contact telephone number/ mobile and E-mail address to also register complaints at his office.

9 Penalty Clause

The fault should be attended within 24 hrs. from receipt of complaint from Port, failing which an amount of Rs. 200/- per day will be deducted from security deposit/ support charges as penalty until the fault is restored & camera/system is recommissioned..

10 Other Conditions:

- 1) The Contractor is required to offer rates as per Port's format "Schedule-A1" without fail and indicate taxes and duties if any applicable.
- 2) Technical and Commercial conditions shall be clearly furnished in the quotation. The offer shall indicate the make and model of the equipment and shall accompany with the relevant technical leaflet.
- 3) The rate should be quoted as per unit.
- 4) The rate quoted should be maintained till the completion of supply and no upward price revision will be agreed to.

- 5) GATE PASS: Necessary Entry Permits shall be obtained by the Contractor on chargeable basis.
- 6) The Contractor must comply with the Safety aspects as governed by the relevant edition of Indian Electricity Rules and Industrial Safety, the contractor shall be responsible for overall safety.
- 7) **ADDITION & DELETIONS**: CME reserves the right to add or delete the above mentioned quantities of CCTV cameras by around 10% of the quantity during the currency of the contract and his decision is final and binding upon the contractor.
- 8) The Tenderer shall inspect the site and assess the requirement before furnishing their offered.

PRICE SCHEDULE (BILL OF QUANTITIES)

Sr No	Description	HSN Code	Unit	Qty	Rate (Rs)	Amount (Rs)
1.	Supply, Installation, testing and commissioning of IP based bullet 2MP outdoor type Camera as per technical specification					
	a) Supply		No.	3		
	b) Installation, testing and commissioning		No.	3		
2.	Supply, Installation, testing and commissioning of Network Video Recorder of minimum 8 Channel along with 1TB Hard disk for recording and storage. as per technical specification					
	a) Supply		Nos.	1		
	b) Installation, testing and commissioning		Nos.	1		
3	Supply, installation , Testing & Commissioning of 8 Port 100 Mbps POE Switch as per technical specification at Schedule-'A'					
	a)supply		Nos.	1		
	b)Installation, Testing and Commissioning		Nos.	1		
4	Supply, Installation, Testing & Commissioning of 1 KVA online UPS as per technical specification at Schedule-'A'					
	Supply		Nos.	1		
	b)Installation, Testing & Commissioning		Nos.	1		
5	Supply of CAT 6 Indoor Cable as per Technical specification at schedule-A		Mtr	350		

6	Supply and Laying of Suitable size casing capping for CAT-6 cable, power cable as per technical specification at Schedule-'A'					
	a) Supply		Mtr	300		
	b) Laying along the wall/ceiling etc		Mtr	300		
7	Accessories like screw, clamp, bends, PVC power cable, Switch Socket, RJ45 etc.		LS	1		
8	Configuration of all equipment, supervision and documentation		LS	1		
TOTAL						

Total (In Words)

Rupees _____

Date:

Signature:

Place:

Name:

Address:

Office Seal of firm

Note: The rates quoted shall be inclusive of transportation, lodging and boarding, out-of-pocket expenses (OPE) on conveyance, communication expenses, 3rd party expenses and subsistence expenses on site but exclusive of GST. Applicable GST shall be paid extra as applicable.