



आईएसओ 9001-2015 प्रमाणित  
AN ISO 9001-2015 PORT

**MORMUGAO PORT AUTHORITY**  
**ENGINEERING MECHANICAL DEPARTMENT**

**ELECTRICAL HEADLAND SECTION**

**NOTICE INVITING BUDGETORY OFFERS**

Name of Work	<b>NAME OF WORK</b> "CAMC for the existing 41 Nos. of CCTV Cameras at Port's operational areas"
Date of submission of budgetary quotation	On or Before <b>10/08/2022 at 11.00 Hrs.</b>
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) 2594241/15/42 Email : <a href="mailto:xene.mgpt@gmail.com">xene.mgpt@gmail.com</a>
Website	<a href="http://www.mptgoa.gov.in">www.mptgoa.gov.in</a>

**EXECUTIVE ENGINEER (E-HL)**  
**MORMUGAO PORT AUTHORITY**



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CME/XEN(E-HL)/M-22/2022/

.07.2022

**Sub: CAMC for the existing 41 Nos. of CCTV Cameras Port's Operational areas.**

**Ref: Budgetary Quotation No. CME/XEN(E-HL)/M-22/02.**

Mormugao Port Authority intends to carry out CAMC for the existing 41 Nos. of CCTV Cameras at Port's operational areas.

As such, kindly furnish your 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 latest by 10.08.2022.

Thanking you,

Yours sincerely,

**EXECUTIVE ENGINEER (E-HL)**



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**SCHEDULE - 'A'**

**TECHNICAL SPECIFICATION**

**1.0 GENERAL**

Mormugao Port Authority proposes to entrust Comprehensive Annual Maintenance Contract (CAMC) for the existing 41 Nos. of CCTV Cameras at Port's operational areas for the period of 03 Years.

**1.1. DETAILS OF EXISTING CAMERAS, NETWORKING COMPONENTS AND ALL OTHER ACCESSORIES**

Comprehensive Annual Maintenance Contract of CCTV systems includes the following:-

- i) 21 Nos. of PTZ Dome IP Camera [make: 13 Nos. Bosch + 8 Nos. Panasonic] and 20 Nos. of Fixed IP camera (make: 13 Nos. Bosch + 7 Nos. Panasonic) complete with camera housing, camera mounting kit and all other accessories including camera mounting structure.
- ii) 2 Nos. 32 channel NVR (1No.- Divar 5000 + 1No. WJ-NX300) with 16TB, 12 HDD complete with all accessories
- iii) 15 sets of 50 Mbps (Radwin make: RW2000/A/F58/WPC/INT/25M) point to point wireless links complete with all accessories.
- iv) 5 sets of 100 (Cambium make: ePMP 1000) Mbps point to point wireless links complete with all accessories.
- v) 4 set of 1000 (Cambium make: Force 300C) Mbps point to point wireless links complete with all accessories.
- vi) 4 Nos. of Remote viewing unit Desktop PC with 32 inch panasonic monitors(incl accessories like keyboard, mouse, TV remote, Batteries)
- vii) 2 Nos. of 24 Port Switch (1 No. Catalyst 2960G + 1No. SG300) complete with all accessories
- viii) 6 Nos. of 8 Port PoE Switch (2 Nos. SG350 + 4Nos. SG300) complete with all accessories
- ix) 2 Nos. 43" TFT LED Monitor (make: LG, Panasonic) complete with all accessories.
- x) 1 No. 40" TFT LED Monitor (make: Sony) complete with all accessories.
- xi) 1 No. 5 KVA ON-LINE UPS with batteries (26 AH x 16) complete with all accessories.



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xii) 6 Nos. GI Tower (15m-3 Nos. 12m- 3 Nos.)

1.2. **21 Nos. of PTZ Dome CCTV cameras installed in the following Locations:-**

Sr. No.	Location	Make	Model No.	Category
1	Launch Jetty (T1 Shed)	Bosch	Autodome IP 5000 IR	A
2	Outer Channel (Signal Station)	Bosch	Autodome IP 5000 IR	A
3	Port Channel ( Admin. Bldg.)	Bosch	Autodome IP 5000 IR	A
4	Berth No. 11 (High Mast No. 34)	Bosch	Autodome IP 5000 IR	A
5	Railway Signaling New Bldg.	Bosch	Autodome IP 5000 IR	B
6	Railway Signaling Old Bldg.	Bosch	Autodome IP 5000 IR	B
7	Berth No. 10 (High Mast No. 31)	Bosch	Autodome IP 5000 IR	A
8	Cruise Berth ( High Mast)	Bosch	Autodome IP 5000 IR	A
9	Ammonia Tank (ZIOTL Tower)	Bosch	Autodome IP 5000 IR	B
10	R&D Yard (High Mast No.46)	Bosch	Autodome IP 5000 IR	B
11	Highmast No.6	Bosch	Autodome IP 5000 IR	B
12	Behind GCB Building (Highmast 2)	Bosch	Autodome IP 5000 IR	B
13	High Mast No 1, Near Gate 1.	Bosch	Autodome IP 5000 IR	B
14	High Mast No. 36	Panasonic	V6430L	A
15	IOC Building	Panasonic	V6430L	B
16	High Mast No. 12(Barge Jetty No. 1)	Panasonic	V6430L	A
17	High Mast No. 17(Near Berth No. 8)	Panasonic	V6430L	A
18	Opp old Church on Tower	Panasonic	V6430L	B
19	Berth No.4 on Tower	Panasonic	V6430L	A
20	Light House on Cruise Berth	Panasonic	V6430L	A
21	Highmast No. 3	Panasonic	V6430L	B

1.3. **20 Nos. of IP Fixed CCTV cameras installed in the following Locations:-**



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Sr. No.	Location	Make	Model No.	Category
1	Gate No. 9 IN	Bosch	Dinion IP Bullet 5000HD	A
2	Gate No. 9 OUT	Bosch	Dinion IP Bullet 5000HD	A
3	Gate No. 1 IN	Bosch	Dinion IP Bullet 5000HD	B
4	Gate No. 1 OUT	Bosch	Dinion IP Bullet 5000HD	B
5	Gate No. 2 IN	Bosch	Dinion IP Bullet 5000HD	B
6	Gate No. 2 OUT	Bosch	Dinion IP Bullet 5000HD	B
7	Gate Cruise Berth IN	Bosch	Dinion IP Bullet 5000HD	B
8	Gate Cruise Berth OUT	Bosch	Dinion IP Bullet 5000HD	B
9	Gate Admin Bldg	Bosch	Dinion IP Bullet 5000HD	B
10	Gate Signal Station	Bosch	Dinion IP Bullet 5000HD	B
11	Gate Substation A	Bosch	Dinion IP Bullet 5000HD	B
12	WISL IN	Bosch	Dinion IP Bullet 5000HD	B
13	WISL OUT	Bosch	Dinion IP Bullet 5000HD	B
14	Admin Bldg Parking 1	Panasonic	V1330L1	B
15	Admin Bldg Parking 2	Panasonic	V1330L1	B
16	Admin Bldg. Gate on Tower	Panasonic	V1330L1	B
17	T2 Shed 1	Panasonic	V1330L1	B
18	T2 Shed 2	Panasonic	V1330L1	B
19	T3 Shed 1	Panasonic	V1330L1	B
20	T3 Shed 2	Panasonic	V1330L1	B

The CCTV surveillance system is the combination of both fixed and PTZ cameras installed at various locations inside the Port's operational area and these cameras are connected to the centralized monitoring Control Room at Commandant, CISF Office through wired and wireless connectivity.

**1.4. LOCATIONS OF REMOTE VIEWING UNIT – 06 Nos.**

Sr. No.	Location	Qty
1	Dy. Commandant Office Room	1 No.
2	CISF CCTV Control Room	1 No.



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3	Signal Station	1 No.
4	Railway Signalling	1 No.

**2.0 Scope of work**

- 2.1 The comprehensive maintenance shall begin from 01.01.2023 to 31.12.2025, which shall comprise replacement of all defective components of the system including the cameras. There are total 41 nos. CCTV cameras installed in Port's Operational areas. Out of these 26nos. were installed in 2017 and the remaining 15nos. were installed in May 2021, which are under warranty until April 2023. The Bidder is required to include these 15nos. from May 2023.
- 2.2 During the CAMC period, the contractor has to deploy 02 Nos. employees, one of which should be having experience of minimum 03 years in maintenance of CCTV system and minimum qualification of Diploma/ Degree, and second one should have minimum experience of 02 years and minimum educational qualification ITI. They should be reporting exclusively to MPA daily and should be permanently stationed at the Administration Building during working hours so as to ensure attending to any breakdown calls promptly. The staff so posted has to be capable of carrying out any kind of troubleshooting which may include re-configuration of the existing system. Only extremely difficult issues may be handled with intervention of OEM. The contractor and its deployed employees should be known of the fact that they are handling Port's very critical data confidentiality of which is of top most importance. In this regards, Police verification of the deployed staff to be furnished within 30days of placement of work order. These deployed staff will have to undertake any works pertaining to shifting of cameras or installation of new cameras for which material will be provided by the Port. Attendance of these technicians will be recorded with the Port's EIC.
- 2.3 During CAMC period if any of the equipment mentioned above from 1.1.i to 1.1.xiii i.e camera, NVR, wireless transmitters and receivers, etc. are found defective /damaged, same has to be repaired/replaced by the Tenderer at their cost. Therefore, Bidders shall assess the environmental conditions, wind speed etc and inspect the installed equipments if necessary before offering their quote, as to ensure continual stability in running of system successfully.



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- 2.4 A breakdown register shall be maintained by the service technician's under the control of the CISF's representative to whom the technicians should report and it will be countersigned by the CISF's representative from time to time. **The technicians should be present from 8.30 A.M. to 5.30 P.M. from Monday to Saturday for attending the work and will submit, on monthly basis, the day to day service reports.** 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/fax/mobile/E-mail address to also register complaints at his office.
- 2.5 The Contractor shall maintain bare minimum and critical spares, list of which shall be submitted and concurred by the port. These spares shall be stocked by the successful tenderer at all times at Port premises in the custody of the technicians deputed. The spares so stocked shall be recorded in the inspection register and got endorsed by the CISF's representative. The purpose of maintaining the bare minimum spares is to ensure high uptime of the system.
- 2.6 Any other works assigned by the Engineer In Charge(EIC) related to other CCTV system in the Port from time to time.
- 2.7 All tools and tackles required for effective maintenance such as Laptop, LAN tester, Crimping tools, line tester, etc. or any other tools required besides these shall be provided by the contractor and should be available at site till completion of the contract period.
- 2.8 The Tenderer shall quote for maintaining the entire system offered for a period of 03 years including replacing of spares during this period.
- i) Preventive and breakdown maintenance should be carried out to maintain the equipments in healthy operating condition.
  - ii) Preventive Maintenance(PM) shall be carried out strictly in four equal intervals of time per annum. The contractor's staff deputed to the Port shall ensure prompt attending to any breakdown calls and carry out any other regular maintenance that is required such as cleaning of the camera front glass from time to time to ensure picture perfect visibility. Also, once in a year painting of the power supply panels of the cameras mounted on highmasts and of the camera mounting poles, complete with scrapping and painting of one coat of red oxide primer and two coat of anti-corrosive silver paint. All the PM works shall be carried out as per checklist formulated by



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the contractor and concurred by the Port. Records of which are to be maintained. Further, attending to calls pertaining to shifting of existing or installing of new cameras, wherein required materials will be provided by the Port.

- iii) Attending to all emergency breakdown calls even beyond working hours, on Sundays or Holidays.
- iv) Providing Telephonic support service in case of need.
- v) Two wheeler and a cell phone must be provided to each technician for facilitating to attend breakdowns at site.
- vi) Maintaining adequate spares to meet any eventuality.
- vii) Maintaining operation and maintenance logbooks and records of preventive maintenance, non-availability of the system.
- viii) The Contractor shall consider while offering the quote that first year of the CAMC contains two parts which is detailed below:
  - a) Old system installed in 2017 to be included in CAMC from 01.01.2023 to 31.12.2023, the details of the same are tabulated below as **Table 1**.

SI no	Item	Make	Model	Specs	Qty	Remarks
1	NVR	Bosch	Divar 5000	32 channel	2	
2	Fixed Cameras	Bosch	Dinion IP Bullet 5000HD		13	
3	PTZ Cameras	Bosch	Autodome IP 5000 IR		13	
4	Wireless Modems with PoEs	Radwin	RW2000/A/F58/WPC/INT/25M	50 Mbps	30	
5	PoE switches	Cisco	SG300	8 Port	4	
6	LED Monitors	LG		43 inches	1	
		Panasonic		43 inches	1	
7	Desktop PC with 32 inch panasonic monitors(incl accessories like keyboard, mouse, TV remote, Batteries)	Lenovo	Vostro	Intel i3/4GB/1TB HDD/1GB graphics card	4	Dy Comm, Rly Sig, Sig Station, CISF CCTV room
8	Switch	Cisco	SG300	24 port	1	Signal station
9	Switch	Cisco	Catalyst 2960G	24 port	1	CCTV room
10	Online UPS	Techser		5KVA	1	





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11	GI Lattice Towers	--	--	15mtrs	3	
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b) New system installed in 2021 to be included in CAMC from 01.05.2023 to 31.12.2023 and the details of the same are tabulated below as **Table 2**.

Sl no	Item	Make	Model	Specs	Qty	Remarks
1	NVR	Panasonic	WJ-NX300	32 channel	1	
2	Fixed Cameras	Panasonic	V1330L1	2MP	7	
3	PTZ	Panasonic	V6430L	2MP	8	
5	Wireless Modems with PoEs	Cambium	ePMP 1000	100Mbps	10	
6	Wireless Modems with PoEs	Cambium	Force 300C	1000 Mbps	8	
7	PoE switches	Cisco	SG350	8 Port	2	
8	LED Monitor incl accessories(Remote, HDMI cable, Battery etc)	Sony		40 Inch	1	Smart TV
9	GI Lattice Towers	--	--	15mtrs	3	

**3.0 COMPLETION PERIOD:**

The Comprehensive Annual Maintenance Contract (CAMC) is for a period of 03 years from 01.01.2023 to 31.12.2025

**4.0 PENALTY CLAUSE**

The system uptime shall be 100% for Category "A" and 97% for Category "B" beyond which an amount of Rs.1,000/- per day per camera will be deducted for first 7 days. Beyond 7 days an amount of Rs.1,500/- per day will be deducted as penalty for both the categories.

It may be noted that penalty clause will be applied only in case of issues/shortfalls related to CCTV system associated with the contractor.



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If the technician's fails to report to CCTV section an amount of Rs. 500/- per day will be deducted from the bill as penalty, in addition the contractor shall arrange to make available a replacement technician and the credentials/ technical expertise of whom has to be intimated by the contractor and concurred by the Port.

**5.0 OTHER TERMS AND CONDITIONS**

- ii. The firm is advised to visit the site and get acquainted regarding the nature of the work involved at site conditions before quoting the offer.
- iii. The Technical Specification "Schedule-A" and Schedule of Prices & Quantities "Schedule-A1" to be read in conjunction to ensure the actual works involved.
- iv. CCTV system should be handed over to Port in working condition after completion of CAMC period of 3 years.
- v. Advance information of at least 24 hours shall be given by the contractor before undertaking maintenance and servicing works periodically once in a month including camera cleaning.
- vi. The Contractor should engage skilled service personnel with the relevant required tools and instruments for attending the faults and commissioning the same.
- vii. The Contractor has to follow all safety, security and General Rules as per relevant IS standards and environmental regulations enforced by Mormugao Port Authority.
- viii. No additional labour, Materials, Testing Equipments, calibration and Transport will be provided throughout the contract period by the Port.
- ix. The Port will not be responsible for any loss or injury of the personnel / materials / tools / plants engaged by the contractor during the work at site / transportation during the currency of the contract.
- x. The contractor should indicate the GST No.
- xi. No advance payment will be made by the Port.
- xii. The payment for the CAMC shall be made on Quarterly basis.
- xiii. Necessary entry passes shall be obtained by the firm at their own cost with the approval of Port Officials.
- xiv. For any clarifications, the contractor may contact the 'Executive Engineer at 1st floor of the Administrative Office, Ph.0832-2594241/42/15



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**SCHEDULE 'A1'**

**SCHEDULE OF PRICES AND QUANTITIES**

**PRICE SCHEDULE**

Sl. No.	Description of work	Unit	Qty.	Rate/Unit (Rs.)		GST %	Amount (Rs.)
				In figure	In words		
1.	Charges for the Comprehensive Annual Maintenance Contract for the existing 41 Nos. of CCTV Cameras including all accessories & networking components for the period of Three Years inside the Port premises.						
i)	1 <sup>st</sup> Year	No.	26				
	a) Old system as per table-1 from 01.01.2023 to 31.12.2023.						
	b) New system as per table-2 from 01.05.2023 to 31.12.2023	No.	15				
ii)	2 <sup>nd</sup> Year from 01.01.2024 to 31.12.2024	No.	41				
iii)	3 <sup>rd</sup> Year from 01.01.2025 to 31.12.2025	No.	41				
<b>Total Amount</b>							

(In Words Rupees \_\_\_\_\_ only  
exclusive of all taxes and duties)

**Note: The rates quoted shall be inclusive of transportation, lodging and boarding, but exclusive of GST. Applicable GST shall be paid extra as applicable.**



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