



COCHIN PORT AUTHORITY

Tender document 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.

(TECHNICAL BID)

Office of the Chief Mechanical Engineer,
Cochin Port Authority,
Willingdon Island, Cochin- 682009.



COCHIN PORT AUTHORITY

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Office of the
Chief Mechanical Engineer,
Cochin Port Authority,
Willingdon Island,
Cochin-682 009, Kerala.

Section-I Notice Inviting Tender

1. Tenders are invited through Government e- Marketing Place (GeM portal) in Single Stage Two Cover bidding procedure [Technical Bid and Financial Bid], by the Chief Mechanical Engineer, Cochin Port Authority, Willingdon Island, Cochin-682009, from Proprietorship/ Individual/Limited company/LLP meeting the Minimum Qualification Criteria specified below 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, totally seven years of maintenance by the bidders”**. Tenderers , who fulfill the Minimum Qualification Criteria and Terms and Conditions given below, may register their tenders through GeM well in advance on or before the scheduled date of submission.

2. **Minimum Qualification Criteria(MQC):**

The tenderer shall fulfill the following Minimum Qualification Criteria to prove the techno-commercial competence and submit the documents in support thereof:

- 2.1. **Experience:**

- a) The tenderer should be either an Original Equipment Manufacturer (OEM) or an Authorized Dealer of IP CCTV Security cameras.
- b) In the case of Authorized Dealer, valid dealership certificate shall be furnished along with the Technical Bid.
- c) The tenderer should have the experience of successfully carried out **similar work** as mentioned below, during the last 7 years as on **31.12.2023 to Ports/ Airports/ State/ Central Government Departments/ Reputed Private organizations**.
 - (i) Three similar completed works each costing not less than **Rs.71,00,000/-** (OR)
 - (ii) Two similar completed works each costing not less than **Rs.88,55,000/-** (OR)
 - (iii) One similar completed work costing not less than **Rs.1,42,00,000/-**.

“Similar work(s)” means “Supply, installation, testing and commissioning of IP based CCTV surveillance systems”.

2.2. Financial Turnover: Average Annual Financial Turnover of the tenderer during the last three financial years, ending 31/03/2023 (viz. 2020-21, 2021-22 and 2022-23) shall not be less than **Rs.53,13,000/-**

2.3. The tenderer should submit the following documents along with the tender to prove the MQC:

(i) Notarized copies of Work Order / Contract Agreement and certificate of satisfactory performance / completion, with work order number and value of the item(s), issued by the Client as proof for having satisfactorily supplied, installed, tested and commissioned CCTV Surveillance system and accessories. Details of such contracts shall be furnished as per Annexure-4a & 4b.

(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.

Year before	Multiplying factor
One year	1.07
Two years	1.14
Three years	1.21
Four years	1.28
Five years	1.35
Six years	1.42
Seven years	1.49

(iii) The experience certificate of contracts executed in private sectors / organizations shall be considered for qualification only on submission of Form 26 AS.

(iv) A statement duly certified by the Chartered Accountant showing the Average Annual Financial Turnover during the last three financial years, (viz. 2020-21, 2021-22 and 2022-23) and Annual Accounts duly certified by a Chartered Accountant shall be submitted along with the tender. Chartered Accountant will provide their UDIN (Unique Document Identification Number) while certification with QR code if available.

2.4. The entire Surveillance System should be covered under 2 years guarantee. In addition, all the CCTV cameras, Rack Mount Recorder, VMS, Server, HDD, High End Work station, Professional display etc. shall be covered under OEM warranty for 5 years.

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.

2.6. All items shall be UL Certified products. UL Certificates to be enclosed along with the supply.

2.7. The OEM shall have STQC/ VAPT certifications wrt Cyber Security.

2.8. Official valid H.264/ H.265 HEVC Certificate shall be submitted at the time of bidding.

2.9. Cameras should not contain any “HiSilicon /Fullhan Microelectronics /Ingenic / Sigmastar” make chipset/ SoC/ Sensor/parts which are vulnerable to cyber-attack.

2.10. The Tenderer shall provide VMS system and Server compatible to the new CCTV cameras that are proposed to be provided in this tender and the old existing CCTV cameras already available at CoPA premises. The tenderer shall be required to visit the present network and cameras and accordingly submit the offer for total CCTV solutions.

3. Other Eligibility Considerations:

3.1. Even though the tenderers meet the above qualifying criteria, they are subject to be disqualified if they have (i) made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or (ii) record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.. In this regard the firm should submit a declaration that they have no record of poor performance, at the time of submitting the tender.

4. Pertinent information to the tender is given in the following tables.

Table (1)

No.	Item	Details
1	Description of work to be executed	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, totally seven years of maintenance by the bidders. In addition, all the CCTV cameras, Rack Mount Recorder, VMS, Server, HDD, High End Work station, Professional display etc. shall be covered under OEM warranty for 5 years.
2	Employer	Cochin Port Authority
3	Employer’s Representative	Chief Mechanical Engineer
4	Executing Authority	Chief Mechanical Engineer
5	Estimated Amount put to Tender (Work+AMC)	Rs.1,77,08, 553/- including GST
6	Earnest Money Deposit (Exemption given as per Cl.no.9 below)	2% of estimate amount: Rs.3,55,000/-. (The EMD shall be furnished in the form of Account Payee Demand Draft/ Banker’s Cheque/ Bank Guarantee from a Commercial Bank in favour of “FA&CAO, Cochin Port Authority”, encashable at Cochin or online payment in an acceptable form safeguarding the purchaser’s interest in all respects.)
7	Validity period of Tender	90 days
8	Completion Period	120 days from the date of issue of LoA

Table (2)

No.	Particulars	Date and Time
1	Tender e-publication date	06.02.2024
2	Download period of Bid Documents	06.02.2024 to 06.03.2024
3	Date of pre-bid meeting	19.02.2024 at 11.30 HRS.
4	Last date for seeking clarification	19.02.2024 11.00 HRS.
5	Likely date of uploading the addendum/clarification if any	22.02.2024
6	Last date and time of submission of bid	06.03.2024 15.00 HRS.
7	Date and time of opening the bid	06.03.2024 AT 15.30 HRS.

5. The Scope of the work is:

- (i) The requirement, calls for a complete working system and not components thereof. Bids must be complete with all equipment and required accessories along with necessary power systems including standard video connectors, patch connectors, patch leads, mounting and fitting hardware, plugs, sockets and any hardware/software, etc. as required for complete installation of the System under this contract.
- (ii) The scope of this tender includes, Supply installation and commissioning of IP based CCTV surveillance system, involving fixed/PTZ cameras and ANPR IP cameras at various locations compatible to the existing system.
- (iii) **Functional requirement:**
 - a) Easy and convenient operation
 - b) Stability
 - c) Back-up as evidence for 90 days
 - d) Cameras shall be manufactured with high reliable components, with long lifespan.
 - e) The contractor shall ensure that the system is supplied, installed and commissioned as per user's satisfaction.
 - f) The contractor has to provide Media as required for all the software.
 - g) The installed system shall have the latest version of the applicable software.
 - h) The scope also includes making good defective materials/items and the workmanship during the 2-year guarantee period for the CCTV surveillance system and 5 year OEM warrantee for the CCTV cameras, Rack Mount Recorder, VMS, Server, HDD, High End Work Station, Professional Display, etc.
 - i) The contractor shall ensure that the system is supplied, installed and commissioned as per the Scope of work.

6. Cochin Port Authority will not be held responsible for any technical snag or network failure during online bidding. It is the bidder's responsibility to comply with the system requirement, i.e. hardware, software and internet connectivity, at bidder's premises to access the GeM Portal.
7. Under any circumstances, Cochin Port Authority shall not be liable to the bidders for any direct/indirect loss or damages incurred by them, arising out of incorrect use of the GeM Portal or internet connectivity failures. The bidder is responsible to download Addendums/ Amendments/ Errata/ Replies to the queries of the bidder etc., if any, issued by the Employer, from the website before submission of the bid. Any shortfall in submissions of the said Addendums/ Amendments/Errata/Replies to the queries of the bidder duly signed etc. along with the downloaded documents while submitting the bid will not be considered. Incomplete bid documents may be rejected.
8. Bank details of Cochin Port Authority are as follows: State Bank of India, Cochin Port Authority Branch, IFSC Code: SBIN0006367, Account No.41401802288.
9. **Exemption from the payment of EMD will be given to Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organization or the concerned Ministry or Department as provided in GFR 2017.**
10. The bidder should not have been blacklisted or debarred by any Central / State Government / Agency of Central / State Government / Public Sector Undertaking / Regulatory Authority of India at the time of submission of this bid. In this regard the firm should submit a declaration that they have not been blacklisted or debarred by any Central / State Government/ Agency of Central / State Government / Public Sector Undertaking / Regulatory Authority of India at the time of submission of bid.
11. The undersigned reserves the right to reject/cancel/postpone/annul the tenders at any stage of the tender without assigning any reason thereof, which will be binding on all bidders.
12. This tender notice shall form part of the tender document and are to be signed and uploaded along with the technical bid.

**CHIEF MECHANICAL ENGINEER
COCHIN PORT AUTHORITY**

SECTION-II INSTRUCTIONS TO TENDERERS

1. Introduction

1.1 Tenders are invited through GeM portal in Single Stage Two Cover bidding procedure [Technical Bid and Financial Bid], by the Chief Mechanical Engineer, Cochin Port Authority, Willingdon Island, Cochin-682009 from Proprietorship/ Individual/Limited company/LLP meeting the Minimum Qualification Criteria specified for the **“Supply, installation, testing and commissioning of 36 nos. of IP CCTV security cameras at various locations of CoPA, including 2 years guarantee and 5 years comprehensive AMC thereafter”**, as per the Scope of Work and Technical Specifications given in the tender document. The site is at Willingdon Island, Cochin.

2. General Instructions

- 2.1. The Contract is to be executed as described in the Bid document and in particular in the Scope of Work and Technical Specification, General Conditions of Contract, Bill of Quantities etc.
- 2.2. Before submitting the bid, the tenderer shall examine carefully all conditions of contract, specifications, etc. supplied herewith. It will be deemed that prior to the submission of tender, the tenderer has satisfied himself as to the nature and location of the supply, general and local conditions, working conditions etc. and that the tenderer has estimated his cost accordingly and the Port Authority will be in no way responsible for the lack of such knowledge and also consequences thereof to the tenderer.
- 2.3. A tenderer shall be deemed to have full knowledge of all documents, working conditions etc. The submission of a bid by the bidder implies that he has read the Notice and Conditions of Contract and has made himself aware of the scope and specifications and other factors bearing on the bid and that they are binding on him.
- 2.4. The tenderer please note that the EMPLOYER will not entertain any correspondence or query on the status of the offers received against this Bid. Bidders are also requested not to depute any of their personnel or agents to visit the Employer’s offices for making such enquiries till finalization of the bid. Should the EMPLOYER find it necessary to seek any clarification, technical or otherwise, the concerned bidder will be duly contacted by the EMPLOYER.
- 2.5. Canvassing in any form by the bidder or by any other agency acting on behalf of the bidder after submission of the bid may disqualify the said bidder. The Employer’s decision in this regard shall be final and binding on the bidder.
- 2.6. In case of an unscheduled holiday on the prescribed closing/opening day of the bid, the next working day will be treated as the scheduled day of closing/opening of the bid.
- 2.7. While evaluating the document, regard would be paid to National Defense and Security Considerations, at the discretion of the Cochin Port Authority. Bid received from any bidder may be summarily rejected on National Security Consideration without any intimation thereof to the bidder.
- 2.8. If there are varying or conflicting conditions in the tender documents, the conditions in the General Conditions of Contract (GCC) will prevail.

- 2.9. The Contractor shall be registered under GST and shall furnish documentary evidence in support of valid GST registration.
- 2.10. Exemption from the payment of EMD and Cost of Tender document shall be given to Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organization or the concerned Ministry or Department as provided in GFR 2017. In this regard the firm should submit valid certificate along with QR Code along with the tender, for claiming the available exemptions.

3. Invitation for Bids:

- 3.1. The Invitation for Bids is open to all eligible bidders meeting the Minimum Qualification Criteria.

4. Clarification of the Bidding Documents:

The tenderers are advised to examine the Tender Document carefully and if there be or appear to be any ambiguity or discrepancy in the documents, or any clarifications needed on the Tender Documents; these shall be referred to the Chief Mechanical Engineer in writing at the following address, so as to reach them before the pre-bid meeting. It is to be noted that queries, clarifications received after the above date will not be considered.

Address: Chief Mechanical Engineer,
Cochin Port Authority, Willingdon Island,
Cochin, 682009, Kerala, India.
Phone: 91-0484-2666639/2582300 /2305, Fax: 91-0484-2666639

Email: cme@cochinport.gov.in/ajithkumar@cochinport.gov.in/humbliuej@cochinport.gov.in

5. Pre-Bid Meeting:

- 5.1. A prospective tenderer requiring any clarification of the tender shall submit their queries in writing/e-mail in advance before the pre-bid meeting. The Pre-Bid meeting will be held through Video Conference and the link will be shared to the bidders on their request. The bidders who wish to attend the Pre-bid Meeting may send clarifications well in advance by email to the Chief Mechanical Engineer so as to share the link for attending the meeting through Video Conference.

6. Amendment of Bidding Documents:

- 6.1. The Chief Mechanical Engineer, Cochin Port Authority shall have the right to revise or amend the Bid documents prior to the due date of submission of the Bid by issuance of addenda/corrigenda. Any addendum/ corrigendum thus issued shall be part of the tender document. The addendum/ corrigendum, if any, shall only be hosted in the GeM portal as well as in the website of the Cochin Port and CPP Portal. It is the responsibility of the Bidders to download such addenda/ corrigenda hosted in the website and upload the same duly signed along with the Bid. In order to afford the Bidders reasonable time to take any addendum into account, or for any other reason, the Port may, at its discretion, extend the due date for submission of Bid and Bid Extension Notice shall be hosted in the GeM portal and web site.

7. Preparation of bids:

7.1. All documents relating to the bid shall be in the English language.

8. Bid Prices:

8.1. In the GeM Price Bid, the tenderers are requested to quote the total cost for **Supply, installation, testing and commissioning of 36 nos. of IP CCTV security cameras at various locations of CoPA, including 2 years guarantee and 5 years comprehensive AMC thereafter, including GST.**

The items Camera, Rack Mount Recorder, VMS, Server, HDD, High End work station, professional display shall be with 5 year OEM warranty. This may be considered while quoting for AMC contract by the bidder.

Tenderer should ensure that his tendered price as per Price bid is not mentioned anywhere in any other documents in Technical bid submission, directly or indirectly. If any such mention is made, the tender will become invalid and shall become liable for rejection.

The rate quoted by the Tenderer shall be inclusive of the cost of provision of plant and equipment, materials, labour, execution, supervision, maintenance, overheads and profits and every incidental and contingent cost and charges whatsoever and also including Goods and Service Tax (GST). **Evaluation of price for Comprehensive AMC for 5 years will be carried out at the Discounted Factor of 7%.**

9. Currencies of Bid and Payment:

The price shall be quoted by the bidder entirely in Indian National Rupees (INR).

10. Bid Validity:

Bids shall remain valid for a period not less than 90 (Ninety) days after the deadline date for bid submission. A bid valid for a shorter period shall be rejected by the Employer as nonresponsive. Should any tenderer withdraw his tender before these periods, or make any modification in the terms and conditions of the tender which are not acceptable to the department, the earnest money deposited by the tenderer shall be forfeited.

11. Bid Security /EMD:

11.1. Each tender should be accompanied by an Earnest Money Deposit amounting to **Rs.3,55,000/-**. The EMD shall be furnished in the form of Account Payee Demand Draft/ Banker's Cheque/ Fixed Deposit Receipt/Bank Guarantee from a Commercial Bank in favour of "FA&CAO, Cochin Port Authority" encashable at Cochin or online payment in an acceptable form safeguarding the purchaser's interest in all respects. The Earnest Money deposit will not carry any interest. Any bid not accompanied by an acceptable Bid Security shall be treated as Non- responsive and shall be rejected by the Employer. Exemption shall be given to Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organization or the concerned Ministry or Department).

11.2 Forfeiture of Bid security / EMD

Bid Security/EMD will be forfeited in the following cases:

- (a) If a Bidder withdraws his bid during the period of bid validity.
- (b) The Bidder does not accept the correction of the Bid Price pursuant to any arithmetical errors.
- (c) In case of a successful bidder who fails
 - (i) to commence the work, within the specified time limit
 - (ii) to sign the Agreement or furnish the required Performance Security within the specified time limit

12. No Alternative Proposals by Bidders:

Bidders shall submit offers that comply with the requirements of the bidding documents. Alternatives will not be considered.

13 Bid Submission: Bid shall be submitted in prescribed form in two parts:
Technical Bid and Financial Bid.

13.1. Part-I, Technical Bid:

Technical Bid Documents to be submitted through GeM portal, and should contain the scanned copies of the following documents.

- 13.1.1. EMD or MSME Udyam Registration certificate along with QR code, as applicable
- 13.1.2. Letter of Submission(vide *Annexure-1*)
- 13.1.3. Power of Attorney in favour of signatory/s to the Tender, duly authenticated by Notary Public. (vide *Annexure-2*)
- 13.1.4. Organization Details(vide *Annexure-3*)
- 13.1.5. (a) Proof of experience in support of MQC as per *Annexure-4a&4b*.
 - (b) Proof that the tenderer is an Original Equipment Manufacturer (OEM) or authorized dealer. (The OEM who proposes to participate in the bidding process shall produce the certificate of incorporation or registration certificate. In the case of authorized dealer, the firm has to produce the valid authorization certificate from the OEM).
- 13.1.6. Financial documents in support of MQC. Statement duly certified by Chartered Accountant showing Average Financial Turnover of the tenderer over the last three financial years [2020- '21, 2021-'22 & 2022-'23] (vide *Annexure-5*)
- 13.1.7. Declarations by the bidder as per *Annexure-8, Clause no.3.1 and clause no.10 of NIT*
- 13.1.8. Copies of PAN, GST Registration and Bank Information for e-payment.

13.2. Part II: Financial Bid: Tenderers shall submit the BoQ / Price Bid in GeM portal.

14. Deadline for Submission of the Bids:

- 14.1. Tenders attaching all documents shall be submitted through GeM portal strictly in accordance with the instructions to the tenderers terms and conditions of the tender document before the time and the date notified.

15. Clarification of Bids

- 15.1. Chief Mechanical Engineer shall ask for clarification/shortfall of documents before technical evaluation of the tenders. The request for clarification and the response shall be

in writing, but no change in the price or substance of the Bid shall be sought, offered, or permitted.

- 15.2. Any effort by the Bidder to influence the Employer's bid evaluation, bid comparison or contract award decisions, may result in the rejection of his bid.

16. Evaluation and Comparison of Bids:

16.1. Evaluation of Price Bid

- 16.1.1. The tenderers shall quote their total cost for all the items as per schedule, including GST, in the GeM portal.
- 16.1.2. Only those tenders, as determined to be substantially responsive to the requirements of the Tender Documents will be evaluated. Other non-responsive tenders will be rejected. Cochin Port's decision on this shall be final, conclusive and binding.
- 16.1.3. In order to determine the lowest evaluated bid, Cochin Port Authority will consider overall lowest of all the items together.
- 16.1.4. The AMC rates for each year shall be quoted in Schedule "B2". These rates shall also be considered for evaluation purpose. ie total of Schedule B1 and B2 will be taken for arriving the L1 bidder. Evaluation of AMC for 5 years will be carried out at the Discounted Factor of 7% .

17. Alteration of tender documents:

- 17.1. No alteration shall be made in any of the tender documents or in the Bill of Quantities and the tender shall comply strictly with the terms and conditions of the tender document.

18. Award of Contract:

- 18.1. The Employer will award the Contract to the bidder whose offer has been pre-qualified in the technical evaluation as responsive to the bidding documents and has been determined to be the lowest evaluated tender for all the items together.

19. Performance Security/Security Deposit:

- 19.1 The successful bidder is required to furnish Security Deposit within 21 days from the date of issue of Letter of Acceptance (LoA), to guarantee fulfillment of performance and the obligations of the contract, in any one of the following forms:
- i) An irrevocable and unconditional Bank Guarantee as per the Format enclosed in Annexure A of tender document, from a Commercial Bank encashable in Cochin;
 - ii) On-line payment to the Bank Account of Cochin Port Authority indicated in Clause 12 of Notice Inviting Tender.
- 19.2 The value of Security Deposit shall be equivalent to 10% of the total contract value for the 'SITC of 36 nos. of IP CCTV security cameras at various locations of CoPA'. Out of 10% of the Security Deposit, 5% is in the form of Bank Guarantee from a Commercial Bank in favour of "FA&CAO, Cochin Port Authority", encashable at Cochin or online payment in an acceptable form safeguarding the purchaser's interest in all respects and 5% in the form of retention money from the bill.
- 19.3 In case the Security Deposit is furnished as Bank Guarantee, the same should remain valid for a period of 60 days beyond the completion of guarantee period. Failure to submit security deposit within stipulated period will entitled CoPA to terminate the agreement/cancel the LoA.

- 19.4 Cochin Port Authority is not bound to pay interest on the Security Deposit furnished by the successful bidder.
- 19.5 In the event of the Contractor failing to honour any of the commitments entered into under this Contract, Cochin Port Authority shall have unconditional option to encash the Security Deposit. The bank shall be obliged to make payment to Cochin Port Authority upon demand.
- 19.6 In the event of the tenderer, after the issue of the communication of acceptance of offer by the Board, failing /refusing to execute the agreement as hereinafter provided, the tenderer shall be deemed to have abandoned the contract and such an act shall amount to and be construed as the Contractor's calculated and the willful breach of the contract, the cost and consequence of which shall be to the sole account of the tenderer and upon such an event the Board shall have full right to claim damages therefore either together with or in addition to suspension of the bidder from participating in the Tenders invited by Cochin Port Authority, for a period of two years from the date of such suspension. Also, failure to execute the agreement within stipulated period will entitled CoPA to cancel the LoA.
- 19.7 The security deposit submitted for the work of 'SITC of CCTV cameras & accessories' shall be discharged by the Employer and returned to the Contractor not later than Twenty one (21) days following the date of Completion of the 2-year guarantee period and only after submission of security deposit for the 5-year AMC contract. If the contractor does not submit security deposit for AMC and execute the work, then the security deposit submitted towards 'SITC of CCTV cameras & accessories' shall be forfeited.
- 19.8 Separate order shall be issued for AMC of the **36 nos. of IP CCTV security cameras** before the expiry of 2-year guarantee period and separate security deposit for 10% of total AMC cost shall be furnished for covering the 5 year AMC period, in the form of Account Payee Demand Draft/ Banker's Cheque/ Fixed Deposit Receipt/Bank Guarantee from a Commercial Bank in favour of "FA&CAO, Cochin Port Authority", encashable at Cochin or online payment in an acceptable form safeguarding the purchaser's interest in all respects and separate agreement for the AMC shall be executed. The security deposit furnished for the 5-year AMC contract will be released and returned to the contractor not later than Twenty one (21) days following the date of Completion of the entire AMC period.
- 19.8 **Release of Bid Security/EMD:**
The Bid Security/EMD of unsuccessful bidder other than L1 will be refunded immediately after ranking of the Bids. The Bid Security of the successful bidder will be discharged after he has signed the Agreement and furnished the required Performance Security.

20. Signing of Agreement:

- 20.1. The successful tenderer will be required to execute an Agreement at his expense within 21 (twenty one) days from the date of Letter of Acceptance (LoA), on proper value Kerala State Stamp Paper in the prescribed form as per Annexure-B. Agreement can be entered only after furnishing of Security Deposit by the contractor. The agreement as finally executed will include the Employer's Bid Documents and the Tenderer's offer as finally accepted by the EMPLOYER together with addendum/corrigendum, bid clarification and all correspondences exchanged between EMPLOYER and the bidder, if any. Till the formal agreement is executed, the Letter of Acceptance together with the offer as finally

accepted along with correspondences shall form a binding contract between the two parties. Failure to execute the agreement within stipulated period will entitled CoPA to cancel the LoA.

21. Fraud and Corrupt Practices:

- 21.1 The bidder and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this document, the Port shall reject the tender without being liable in any manner whatsoever to the bidder, if it determines that the bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the “Prohibited Practices”) in the Selection Process. In such an event, the Port shall, without prejudice to its any other rights or remedies, forfeit and appropriate the Bid Security or Performance Security, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to the Port for, inter alia, time, cost and effort of the Authority, in regard to the Tender, including consideration and evaluation of such Bidder’s Proposal. Such Bidder shall not be eligible to participate in any tender or RFP issued by the Authority during a period of 2 (two) years from the date such Bidder is found by the Authority to have directly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.
- 21.2. For the purposes of this Clause, the following terms shall have the meaning hereinafter respectively assigned to them:
- (a) “corrupt practice” means
 - (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Authority who is or has been associated in any manner, directly or indirectly with the Selection Process or the LoA or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Authority, shall be deemed to constitute influencing the actions of a person connected with the Selection Process; or
 - (ii) engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LoA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LoA or the Agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of the Authority in relation to any matter concerning the Project;
 - (b) “fraudulent practice” means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process;
 - (c) “coercive practice” means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person’s participation or action in the Selection Process;
 - (d) “undesirable practice” means

- (i) establishing contact with any person connected with or employed or engaged by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or
- (ii) having a Conflict of Interest; and
- (e) “restrictive practice” means forming a cartel or arriving at any understanding or arrangement among Applicants with the objective of restricting or manipulating a full and fair competition in the Selection Process.

22. Rejection of Tender:

22.1. Any Tender not conforming to the foregoing instructions will not be considered. The Employer does not bind himself to accept the lowest or any tender and has the right to reject or discharge the tender without assigning any reason.

SECTION-III

GENERAL CONDITIONS OF CONTRACT (GCC)

1. Definitions: In the Contract (as hereinafter defined) the definition of the following words and expressions shall have the meanings hereby assigned to them except where the context otherwise requires:

- a) "Approved" or "Approval" shall mean approval in writing.
- b) "Contractor/Supplier" means the person or persons, firm, corporation or company whose tender to perform the Contract has been accepted by the Employer and is named as such in the Contract Agreement and includes his servants, agents and workers, personal representatives, successors and permitted assigns.
- c) "Contract" means the Contract Agreement entered into between the Employer and the Contractor, together with Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- d) "Contract Documents" means the documents listed in the contract agreement, including any amendments thereto.
- e) "Contract Price" means the total sum of money (including GST) to be paid by the Employer to the Supplier as specified in the Contract Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.
- f) "Completion" means the fulfilment of the supply of Equipments and Related Services by the supplier in accordance with the terms and conditions set forth in the contract.
- g) "Commercial Use" means use of Goods which the contractor contemplates or of which it is commercially capable after enacting at project site.
- h) "Chief Mechanical Engineer" shall mean the Chief Mechanical Engineer of Cochin Port Authority and includes any officer who is authorized on his behalf for the purpose of this contract.
- i) "Day" shall mean English Calendar Day.
- j) The "Drawings" shall mean the drawings, issued with the specification which will ordinarily be identified by being signed by the Chief Mechanical Engineer and any further drawing submitted by the supplier with his tender and duly signed by him and accepted or approved by the Chief Mechanical Engineer and all other drawings supplied or furnished by the suppliers or by the Chief Mechanical Engineer in accordance with these contract conditions.
- k) Employer/Cochin Port Authority/CoPA/Port/Board" means Board of Major Port Authority for Cochin Port, a body corporate under the Major Port Authorities Act, 2021, by notification issued by the Government of India, acting through its Chairperson, Dy. Chairperson or Chief Mechanical Engineer or Deputy Conservator or any other officers so nominated by the Board.
- l) "Employer's Country" is INDIA.
- m) "Equipment/Goods", means all of the commodities, raw materials, machinery and equipment, and/or other materials that the Contractor is required to supply to the Employer under the contract.

- n) "GCC" means the General Conditions of Contract.
- o) "Month" shall mean English Calendar Month.
- p) "Engineer"/ "Officer in-Charge" means Employee of Employer or any other person, nominated by the Employer.
- q) "**Specifications**" means the specification referred to in the tender documents and any modifications thereof or additions thereto or amendments thereto as may be from time to time be furnished or approved in writing by the Employer .
- r) The "**Schedule**" shall mean the schedule or Schedules attached to the specifications.
- s) "Start Date" The start date shall be seven days from the date of issue of LoA/LoI

2. Contract Documents: Subject to the order precedence set forth in the Contract Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative. Any suit or other proceedings relating to this contract shall be filed, taken by the contractor in a Court of Law only in Cochin.

2.1 Dock Safety : For the work carried out within dock area in the vicinity of any wharf or quay the Contractor shall abide by all the provisions of the Dock workers (Safety, Health & Welfare) Regulation 1990 or as amended from time to time.

2.2 Indemnity against all risks :

The contractor shall indemnify the Employer against compensation for injury to any of the contractor's workmen engaged by them under the Indian Employees Compensation Act, 1923 as amended from time to time and shall furnish Insurance Cover for both the men and materials as per the Act and shall indemnify the Employer against all the risks.

3 Settlement of Dispute and Arbitration:

3.1 Conciliation: In the event of any dispute or differences between the parties which could not be resolved amicably by mutual consultations / Arbitration, then the Chairperson of Cochin Port Authority may refer such unresolved disputes or differences to a Conciliation Committee/Council comprising of independent subject experts, set up by the Port to enable speedy disposal of pending/new cases. Recourse to such conciliation shall be open before, during or after the arbitration proceedings. The award of the Conciliation Committee/Council, if agreed by both the parties, shall then be placed for consideration of the Board of Cochin Port subject to the delegation of powers. Guidelines of CSC is available in CoPA's website.

3.2 Arbitration: In case of any dispute, doubt, questions or differences arising out of or in connection with this tender/agreement, it shall be referred to and finally resolved through arbitration as per the provisions of the Arbitration & Conciliation Act, 1996 or any statutory modifications or re-enactment thereof and the rules made there under and for the time being in force, by the sole arbitrator to be appointed mutually by the parties within 30 days of serving the notice to start arbitration proceedings and the decision of the Arbitrator shall be final and binding on the parties. The language to be used in the arbitration shall be ENGLISH. The governing law of the agreement shall be the substantive law of India. The venue of the arbitration shall be at Cochin. The fees and expenses of the Arbitrators and all other expenses of the Arbitration shall be equally shared by the parties.

4 Scope of Work: The Goods and Related Services to be supplied shall be as specified in Scope of Work and Technical Specifications and in accordance with Schedule of Requirements.

5 **Delivery and Completion:** Subject to GCC Clause 23 (Change Orders and Contract Amendments) the delivery of the Goods and completion of the Related Services shall be done within 120 days from the date of receipt of Letter of Acceptance of Employer. The details of shipping and other documents to be furnished by the Contractor are specified in the GCC Clause 8 (Payments Terms).

6 **Contractor's Responsibilities:**

The Contractor shall supply all the Goods and Related Services included in the Scope of Work in accordance with GCC Clause 4 and as per GCC Clause 5.

7 **Contract Price:**

7.1 Prices charged by the Contractor for the Goods supplied and the Related Services performed under the Contract shall not vary from the prices quoted by the Contractor in its Tender, with the exception of any price adjustments authorized by the Employer by issuing Change orders and Contract Amendment, if any. Evaluation of AMC for 5 years will be carried out at the Discounted Factor of 7%.

8. Terms of Payment:

8.1 Payment shall be regulated as detailed below:

8.1.1 The Contractor shall be entitled upon certificates of the Engineer or his nominee to payments in accordance with the following provisions:

1) **For supply portion :** 75% of the value, as certified by the Engineer or his nominee, of the materials from time to time delivered on the site.

Balance 25% after completing the work in all respects, commissioning and handing over the installation to the Employer to the satisfaction of the Engineer and his nominee and his certification.

2) **For erection portion :**

i) 85% of the value as certified by the Engineer or his nominee, of the installation portion on completion of the erection work under contract, for which payments are claimed.

ii) Balance 15% along with other payments if any, after completing the work in all respects, commissioning and taking over the installation by the Employer to the satisfaction of the Engineer and his nominee and his certification.

8.2 All the interim payments shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected. Any certificate given by the Engineer or his nominee relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is/are in accordance with the contract and specifications. Any such interim payment, or any part thereof shall not in any respect conclude, determine or affect in any way powers of the Engineer- or his nominee-charge under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.

8.3 Pending consideration of extension of date of completion interim payments shall continue to be made as herein provided, without prejudice to the right of the department to take

action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority.

- 8.4 No further claims shall be made by the Contractor after submission of the final bill and these shall be deemed to have been waived and extinguished.
- 8.5 Items of the Works for which no rate or price has been entered in will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.
- 8.6 All payments to the Contractor under the contract shall unless otherwise stated elsewhere be made to the Contractor in Indian currency through e- payments through designated Bank.

9 Taxes and Duties:

- 9.1 The contract shall be treated as a works contract. The Contractor shall be responsible for remittance of all taxes, duties, license fees etc. incurred for the Supply, Installation, Testing and Commissioning of the items as per Bill of Quantities. GST shall be paid by the Employer to the Contractor.
- 9.2 Income Tax Deduction: Deduction of Income Tax shall be made from any amount payable to the Contractor as per the relevant provisions of the Income Tax Act as may be specified by the Central Government from time to time, on the gross amount of the Contractor's bill for payment.. The Contractor shall be responsible for payment of all personal income taxes to the concerned authorities as per the law in force from time to time.
- 9.3 TDS under GST Law: TDS under GST law shall be deducted at the prevailing rates. The Contractor shall comply all the GST Regulations viz. timely uploading of bills, issue of debit/ credit notes etc.

10 Performance Security/Security Deposit:

- 10.1 The successful bidder is required to furnish 5 % of the Security Deposit within 21 days from the date of issue of Letter of Acceptance (LoA), to guarantee fulfillment of performance and the obligations of the contract..
- 10.2 The value of Security Deposit shall be equivalent to 10% of the total contract value for the 'SITC of 36 nos. of IP CCTV security cameras at various locations of CoPA'. Out of 10% of the Security Deposit, 5% shall be in the form of an irrevocable and unconditional Bank Guarantee in favour of "FA&CAO, Cochin Port Authority", encashable at Cochin or online payment in an acceptable form safeguarding the purchaser's interest in all respects and 5% in the form of retention money from the bill.
- 10.3 In case the Security Deposit is furnished as Bank Guarantee, the same should remain valid for a period of 60 days beyond the completion of guarantee period. Failure to submit security deposit within stipulated period will entitle CoPA to terminate the agreement/ cancel the LoA.
- 10.4 Cochin Port Authority is not bound to pay interest on the Security Deposit furnished by the successful bidder.
- 10.5 In the event of the Contractor failing to honour any of the commitments entered into under this Contract, Cochin Port Authority shall have unconditional option to encash the Security Deposit. The bank shall be obliged to make payment to Cochin Port Authority upon demand.
- 10.6 In the event of the tenderer, after the issue of the communication of acceptance of offer by the Board, failing /refusing to execute the agreement as hereinafter provided, the tenderer shall be deemed to have abandoned the contract and such an act shall amount to and be construed as the Contractor's calculated and the willful breach of the contract, the cost and

consequence of which shall be to the sole account of the tenderer and upon such an event the Board shall have full right to claim damages therefore either together with or in addition to suspension of the bidder from participating in the Tenders invited by Cochin Port Authority, for a period of two years from the date of such suspension. Also, failure to execute the agreement within stipulated period will entitle CoPA to cancel the LoA.

- 10.7 The security deposit submitted for the work of ‘SITC of CCTV cameras & accessories’ shall be discharged by the Employer and returned to the Contractor not later than Twenty one (21) days following the date of Completion of the 2-year guarantee period and only after submission of security deposit for the 5-year AMC contract. If the contractor does not submit security deposit for AMC and execute the work, then the security deposit submitted towards ‘SITC of CCTV cameras & accessories’ shall be forfeited.
- 10.8 Separate order shall be issued for AMC of the **36 nos. of IP CCTV security cameras** before the expiry of 2-year guarantee period and separate security deposit for 10% of total AMC cost shall be furnished for covering the 5 year AMC period, in the form of Bank Guarantee from a Commercial Bank in favour of “FA&CAO, Cochin Port Authority”, encashable at Cochin or online payment in an acceptable form safeguarding the purchaser’s interest in all respects and separate agreement for the AMC shall be executed. The security deposit furnished for the 5-year AMC contract will be released and returned to the contractor not later than Twenty one (21) days following the date of Completion of the entire AMC period.

11 Subcontracting:

- 11.1 The Supplier shall notify the Employer in writing of all subcontracts awarded under the contract if not already specified in the tender. Such notification, in the original Tender or later shall not relieve the Supplier from any of its obligations, duties, responsibilities, or liability under the contract.
- 11.2 Subcontracts shall comply with the provisions of Instructions to Tenderers Clause 21, Instruction to Tenderers (Fraud and corrupt practices).
- 11.3 Notwithstanding any subletting with such approval as required under above and notwithstanding that the Engineer-in-Charge shall have received copies of any subcontract, the contractor shall be solely responsible for the quality and proper execution of the works, performance of all conditions of contract in all respects as if such subletting had not taken place and as if such work has been done directly by the contractor.
- 11.4 If any sub-contractor engaged upon the works at the site executes, any work which, in the opinion of the Engineer-in-Charge, is not in accordance with the contract condition, written notice may be given to the contractor requesting him to terminate such sub contract and the contractor upon receipt of such notice shall terminate such sub contract and the said sub contractor shall forthwith leave the works, failing which the department shall have right to remove such sub contractors from site. No action taken by the department under this clause shall relieve the contractor of any of his liabilities under the contract or give rise to any compensation, extension of time or otherwise.

12 Specification and Standards:

Technical specification and drawings:

- (a) The Goods and Related Services supplied under this contract shall conform to the Technical Specifications and Standards mentioned in Section IV, Scope of Work and

Technical Specifications and when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate.

- (b) The Contractor shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the Employer, by giving a notice of such disclaimer to the Employer.
- (c) Wherever references are made in the Contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the Schedule of Requirements. During Contract execution, any changes in any such codes and standards shall be applied only after approval by the Employer and shall be treated in accordance with GCC Clause 23 (Change Orders and Contract Amendments).

13 Packing:

- 13.1 Contractor shall provide adequate packing of Equipments to prevent the damage or deterioration during transit to their final destination. The contractor shall be held responsible for all damages or breakages to the goods due to the defective or insufficient packing as well as for corrosion due to insufficient protection. Packing shall withstand hazards normally encountered with the means of transport including loading/unloading operations and shall be done in such a manner to reduce volume as much as possible.
- 13.2 The packing specification incorporated herein are supplementary to the internal and external packing methods and standards as per current general rules of J.R.A. Good Tariff Part-I.
- 13.3 Fragile articles should be packed with special packing materials depending on the type of Materials and the packing shall bear the words "HANDLE WITH CARE GLASS FRAGILE, DON'T ROLL THIS END UP. THIS END DOWN," to be indicated by arrow.
- 13.4 The hazardous materials shall be packed in accordance with the applicable rules, regulations and tariff of all cognizant Government Authorities and other Governing bodies. It shall be the responsibility of the seller of hazardous materials to designate the material as hazardous and to identify each material by its proper commodity name and its hazardous material class code.
- 13.5 All packages requiring handling by crane should have sufficient space at appropriate place to put sling of suitable diameter (strength). Iron/Steel angle should be provided at the place where sling marking are made to avoid damage to package/ equipment while lifting.
- 13.6 Item shipped in bundles must be securely tied with steel wire or strapping. Steel reinforcing rods, bars, pipes, structural members etc. shall be bundled in uniform lengths and the weight shall be within the breaking strength of the securing wire or strapping. In the case of imports, for bundles the shipping marks shall be embossed on metal or similar tag and wired securely on each end.
- 13.7 All delicate surfaces on equipment/materials should be carefully protected with protective paint/compound and wrapped to prevent rusting and damage.
- 13.8 All mechanical and electrical equipment and other heavy articles shall be securely fastened to the case bottom and shall be blocked and braced to avoid any displacement/ shifting during transit.

- 13.9 Attachments and spare parts of equipment and all small pieces shall be packed separately in wooden cases with adequate protection inside the case and wherever possible should be sent along with the main equipment. Each item shall be suitably tagged with identification of main equipment, item denomination and reference number of respective assembly drawing. A copy of the packing list shall accompany the materials in each package.
- 13.10 All protrusions shall be suitably protected by providing a cover comprising of tightly bolted wooden disc on the flanges. All nozzles, holes and openings and also all delicate surfaces shall be carefully protected against damage and bad weather. All manufactured surfaces shall be painted with rust proof paint.
- 13.11 In the case of imports, for bulk uniform material when packed in several cases, progressive serial numbers shall be indicated on each case.
- 13.12 Wherever required, equipment/materials instruments shall be enveloped in polythene bags containing silica gel or similar dehydrating compound.
- 13.13 Detailed packing list in waterproof envelope shall be inserted in the package together with equipment/materials. One copy of the detailed packing list shall be fastened outside of the package in waterproof envelope and covered by metal cover.
- 13.14 Packaged equipment or materials showing damage defects or shortages resulting from improper packaging materials or packing procedures or having concealed damages or shortages, at the time of unpacking shall be to the supplier's account.
- 13.15 All packages which require special handling and transport should have their Centre of Gravity and the points at which they may be slung or gripped clearly indicated and marked "ATTENTION- SPECIAL LOAD HANDLE WITH CARE" in English Language.
- 13.16 Along with the packed material, supplier should attach material list, manuals/ instructions and also the Inspection certificate/release note, wherever applicable.

14 Marking:

The following details to be written on the side face of packing:

- a) LoA Number.
- b) Supplier's Name.
- c) Batch No. with Manufacturing Date.

15 Insurance:

- 15.1 The Goods supplied under the Contract shall be insured by the Supplier at his cost, for the full value as specified in the Employer's supply order against loss or damage incidental to manufacture or acquisition, transportation, storage, and delivery from the works until they are delivered at Employer's premises and accepted by the Employer. Such insurance policy shall be jointly in the name of Contractor and Employer against destruction or damage by accident, fire, flood and tempests. The Contractor shall from time to time, when so, required by the Employer produce the Policy and the receipt for the premium.
- 15.2 The supplier shall be responsible for insurance of all his employees/representatives who are deputed for operational demonstration of equipment at Cochin, against any accidents and shall indemnify the Employer.

16 Transportation:

The Supplier is responsible for transportation of Goods/Equipments from Supplier's premises to the Employer's site at the cost and risk of the Supplier.

17 Consignee of Equipment:

The consignee of all materials sent to Cochin Port Authority is Deputy Materials Manager, Cochin Port Authority, Cochin, 682009. The way bills, invoices etc. shall be addressed to him under intimation to Chief Mechanical Engineer, Cochin Port Authority.

18 Inspection and Testing:

- 18.1 The Inspection and Tests shall be conducted at Contractor's premises and the cost of all such tests shall be borne by the Contractor apart from making arrangements for conduct of such tests. Employer shall not be liable to make any additional payments for conduct tests or for change of location of Test. All cost for fulfillment of obligation on the part of Contractor shall be deemed to have been included in the total contract price offered by him on which the Contract has been awarded to him. However, in case of Additional Tests if any are requested by the Employer shall be at the cost and time of Employer in which case also the Contractor shall make all arrangements required for conduct of such tests in the manner prescribed to do so by the Employer or TPI.
- 18.2 The Employer reserves the right to witness the Pre-delivery Inspection at the Contractor's premises or any place the work demands, along with TPI. The inspections and tests are to be conducted to the entire satisfaction of TPI/Employer. The details of inspections and tests to be carried out are specified under Section IV, Scope of work and Technical Specifications.

19 Liquidated Damages /Late Delivery Charges:

- 19.1 Except as provided under GCC Clause 22 (Force Majeure) and GCC Clause 24 (Extension of Time), if the Contractor fails to deliver any or all of the Goods by the Date(s) of delivery or perform the Related Service within the period specified in the Contract, the Employer may without prejudice to all its other remedies under the Contract, deduct from the Contract price, as liquidated damages, a sum equivalent to ½ % of the total Contract value, per week of such delay or part thereof. The maximum amount of Liquidated Damages shall be 10% of total Contract Value.
- 19.2 The liquidated damages fixed as above shall be considered as reasonable compensation without any actual proof of loss or damage. No variation made in the scope of contract shall be of any excuse for delay in delivery of Goods and Related Services nor prevent the recovery of the said liquidated damages, unless an Extension of date of commencement of contract shall have been granted by the Employer in writing in respect of such variation. The liquidated damages paid/ recovered as above shall not relieve the Contractor from its other obligations and liabilities under the contract. In such events as when the Contractor is unable to complete the delivery of Goods and Related Services, for the reasons not attributable to him, he shall apply for grant of extension of date for completion of contract immediately not later than 48 hours of such occurrence of event and the Employer shall examine the merit of the case and accordingly extension with or without levy of LD shall be given by Cochin Port Authority.

20 Warranty:

- 20.1 The Contractor warrants that all the Goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

- 20.2 The Contractor further warrants that the Goods shall be free from defects arising from any act or omission of the Contractor or arising from design, materials, and workmanship, under normal use in the conditions prevailing in INDIA.
- 20.3 The Employer shall give notice to the Contractor stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof. The Employer shall afford all reasonable opportunity for the Contractor to inspect such defects.
- 20.4 The Contractor shall replace / rectify the defective Goods or parts thereof, at no cost to the Employer during the guarantee period.
- 20.5 If having been notified, the Contractor fails to remedy the defect within seven days, LD will be levied as per the Contract conditions.
- 20.6 All the CCTV cameras, Rack Mount Recorder, VMS, Server, HDD, High End Work station, Professional Display etc. shall be covered under OEM warranty for a period of 5 years from the date of commissioning of the CCTV Surveillance system and the contractor shall be responsible for any defects that may develop under proper use arising from faulty materials, designs, workmanship and shall at his own cost rectify /replace the defective parts / equipment .
- 20.7 If any defects notified by the Employer to the Contractor, not rectified within two weeks from the date of intimation, the Employer will carry out the work at the Contractor's risk and cost without prejudice to any other rights which the Employer may have against the contractor in respect of such defects.

21 Force Majeure:

- 21.1 In the event of either party being rendered unable by Force Majeure to perform any obligation required to be performed under this contract, the relative obligation of the party affected by such Force Majeure shall upon notification to the other party be suspended for the period during which such cause lasts. No payments may be made for force majeure period.
- 21.2 For purposes of this Clause, "Force Majeure" means an event or situation beyond the control of the Party claiming to be affected thereby, (the "Affected Party"), which is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the affected party. Such events may include, but not be limited to, acts of the Employer in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 21.3 Upon the occurrence of such cause and upon its termination the Affected Party, shall notify the other party in writing immediately not later than 48 hours of the alleged beginning and ending thereof giving full particulars and satisfactory evidence in support of its claim. Failure to do so may liable the party being denied of the shelter of the clause.
- 21.4 Employer shall examine the merit of the case and accordingly Time for performance of the relative obligation suspended by the Force Majeure shall then stand extended by the period for which such cause lasts. The decision of the Employer shall be final and binding in this regard.
- 21.5 However, should such a delay even if due to reason of Force Majeure be protracted for more than three 3 (months), the Employer shall cancel the contract, subject to the consent of the Contractor, at no charge to the Employer in Contractor's favour.
- 21.6 The Contractor shall not be liable for forfeiture of its Performance Security, Liquidated damages, or termination for default if and to the extent that it's delay in performance or

other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

- 21.7 If the Force majeure situation arises during guarantee period, unless the contractor is terminated by the employer, the guarantee period will be extended for the number of days affected by force majeure.

22 Change Orders and Contract Amendments:

- 22.1 The Employer may at any time order the Contractor through notice to make changes within the general scope of the Contract in any one or more of the following:

- (a) drawing, designs, or specification, where Goods to be furnished under the Employer;
- (b) the method of shipment or packing;
- (c) the place of delivery; and
- (d) the Related Service to be provided by the Contractor

- 22.2 If any such change causes increase or decrease in the cost of, or the time required for Contractor's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or in the Delivery/Completion Schedule, or both, and the Contract shall accordingly be amended. Any claims by the Contractor for adjustment under this Clause must be asserted within twenty-eight (28) days from the date of the Contractor's receipt of the Employer's change order.

- 22.3 Prices to be charged by the Contractor for any Related Services that might be needed but which were not included in the Contract shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the Contractor for similar services.

- 22.4 Subject to the above no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties. No extras shall be allowed for unless ordered as such in writing by the EMPLOYER and such extras will be paid for at rates and prices to be agreed upon mutually and upon the certification by the Employer or his Representative. Any extra expenses in addition to the amount specified in the Price Schedule which may be Incurred by The Employer in the performance of the work required owing to the neglect or omission on the part of the contractor/contractors his/their workmen in any of the cases mentioned in this contract shall be deducted from any sums due of which may therefore, become due to the contractor/contractors by the Employer or he/they may be called upon to pay the amount of such extra expenses to such person or persons as the Employer may appoint to receive the same and in the event of the contractor/contractors failing to make such payment, the said amount shall be recoverable from him/them in such manner as the Employer may determine.

- 22.5 The quantities indicted in the Price Schedule are estimated only and are liable to be altered or omitted.

23 Extension of Time:

- 23.1 If at any time during performance of the contract, the contractor or its Sub-contractors should encounter conditions impeding timely delivery of the Goods or completion of Related Services, pursuant to GCC Clause 5, the contractor shall promptly notify the Employer in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the contractor's notice, the Employer shall evaluate the situation and may at its discretion extend the contractor's time for performance, in which case the extension shall be ratified by the parties by amendment of the contract.

23.2 Except in case of Force Majeure, as provided under GCC Clause 21, a delay by the Contractor in the performance of its Delivery and Completion obligations shall render the Contractor liable to the imposition of liquidated damages pursuant to GCC Clause 19 (Liquidated Damages), unless an extension of time is agreed upon, pursuant to GCC Clause 23.1.

24 Termination:

24.1 Termination for Default:

24.1.1 The Employer, without prejudice to any other remedy for the breach of Contract, by written notice of default sent to the Contractor, may terminate the contract in the whole or in part:

- (i) If the contractor fails to deliver any or all of the Goods within the period specified in the Contract, or within the extensions granted by the Employer pursuant to GCC Clause 23.
- (ii) If the contractor fails to perform any other obligation under the contract or
- (iii) If the contractor, in the judgment of the Employer has engaged in fraud and corruption as defined in Clause 21 under Instruction to Tenderers, in competing for or in executing the contract.

24.1.2 In the event the Employer terminates the contract in whole or in part, pursuant to GCC Clause 24.1.1, the Employer reserves its right to take any one or more of the following actions:-

- (i) The Performance Security is to be forfeited;
- (ii) The Employer may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not performed, and the Contractor shall be liable to the Employer for any additional costs for such similar Goods or Related Services. However, the Contractor shall continue performance of the Contract to the extent not terminated.

24.2 Termination for Insolvency:

The Employer may at any time terminate the Contract by giving notice to the Contractor if the Contractor becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Employer.

24.3 Termination for Convenience:

- (a) The Employer, by notice sent to the Contractor, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Employer's convenience, the extent to which performance of the Contractor under the Contract is terminated, and the date upon which such termination becomes effective.
- (b) If the contract is terminated for convenience of the Employer as stated in GCC Clause 24.3 (a), the Goods that are complete and ready for shipment within twenty-eight (28) days after the Contractor's receipt of notice of termination shall be accepted by the Employer at the Contract terms and prices. For the remaining Goods, the Employer may elect:-
 - (i) To have any portion completed and delivered at the Contract terms and prices; and/or

- (ii) To cancel the remainder and pay to the Contractor an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Contractor.

25 Execution of Agreement:

The successful tenderer will be required to execute an Agreement at his expense within 21 (twenty one) days from the date of Letter of Acceptance (LoA), on proper value Kerala State Stamp Paper in the prescribed form as per Annexure-B. Agreement can be entered only after furnishing of Security Deposit by the contractor. Upon the receipt of letter intimating award of the Contract (LoA), the Contractor shall prepare two sets (one original and one duplicate) of the Agreement as per the format attached at Annexure-B in the Tender Document, after taking into account any changes thereafter agreed by both the parties, at the earliest without any delay and complete all the formalities and submit the same to the Cochin Port Authority duly executed on Kerala stamp paper of Rs.200/- within 21 days from the date of receipt of LoA. Original of the agreement will be retained by the Cochin Port Authority and the duplicate will be returned to the Contractor after the signature of the Chief Mechanical Engineer. Additional two copies of the signed Agreement shall be submitted for the use of Engineer-in charge and the bill payment section. Failure to execute the agreement within stipulated period will entitle CoPA to cancel the LoA.

26 Sum payable by way of compensation to be considered as reasonable compensation without reference to actual loss:

- 26.1 All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of the Board without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

27 Changes in constitution of firm:

- 27.1 In the case of a tender by partners, any change in the constitutions of the firm shall be forthwith notified by the Contractor to the Chief Mechanical Engineer for his information.

28 Employees of the Board not individually liable :

- 28.1 No official or employee of the Board shall in any way be personally bound or liable for acts or obligation under the contract or answerable for any default or omission in the observance or performance of any of the acts, matters or things which are herein contained.

29 No Claim Certificate:

- 29.1 No dispute or difference on any matter whatsoever, pertaining to the contract can be raised by the contractor after submission of 'No Claim Certificate' in the form as per the format enclosed as Annexure-D

30 Reporting of Accidents

- 30.1 The Contractor shall report to the Engineer details of any accident as soon as possible after its occurrence. In the case of any fatality or serious accident, the Contractor shall, in addition, notify the local police authorities immediately by the available means.

31 Observance by Sub-Contractors

- 31.1. The Contractor shall be responsible for observance by his sub-Contractors of the foregoing provisions.

32. Port Entry Permission

- 32.1 The Contractor shall submit prior application for Port entry passes to the concerned Port

authority for his labourers and the staffs engaged in the works. The Contractor shall retain the original passes obtained by them in respect of their labour and staff engaged in the Works and produce the same to the Engineer as and when called for. It should not be either destroyed or allowed to be taken by the labour/staff after its use.

33. Defect Liability/guarantee

33.1 The Engineer or his nominee shall give notice to the Contractor of any Defects before the end of the Defects Liability/guarantee Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

33.2 Every time notice of a Defect is given, the Contractor shall correct the notified defect within the length of time specified by the Engineer or his nominee's notice. To the intent that the works shall, at or as soon as practicable after the expiration of the Defects Liability Period, be delivered to the Employer in the condition required by the Contract, fair wear and tear excepted, to the satisfaction of the Engineer, the Contractor shall :

- (a) Complete the work, if any, outstanding on the date stated in the Taking-Over Certificate within the date to be intimated by the Engineer and
- (b) Execute all such work of amendment, reconstruction, and remedying defects, shrinkages or other faults as the Engineer may, during the Defects Liability Period or within 14 days after its expiration, as a result of an inspection made by or on behalf of the Engineer prior to its expiration, instruct the Contractor to execute.

33.3 Cost of Remedying Defects

All work referred to in Sub-Clause 33.2 shall be executed by the Contractor at his own cost if the necessity thereof is, in the opinion of the Engineer, due to:

- (a) The use of materials, Plant or workmanship not in accordance with the Contract, or
- (b) Where the Contractor is responsible for the design of part of the Permanent Works, any fault in such design, or the neglect or failure on the part of the Contractor to comply with any obligation, expressed or implied, on the Contractor's part under the Contract.

33.4 Defects Liability Certificate

The Contract shall not be considered as completed until a Defects Liability Certificate shall have been signed by the Engineer and delivered to the Employer, with a copy to the Contractor, stating the date on which the Contractor shall have completed his obligations to execute and complete the Works and remedy any defects therein to the Engineer's satisfaction. The Defects Liability Certificate shall be given by the Engineer within 28 days after the expiration of the Defects Liability Period, or, if different defects liability periods shall become applicable to different Sections or parts of the Permanent Works, the expiration of the latest such period, or as soon thereafter as any works instructed, pursuant to Clauses 36, have been completed to the satisfaction of the Engineer.

33.5 Uncorrected Defects.

If the Contractor has not corrected a Defect within the time specified in the Engineer's or his nominee's notice the Engineer or his nominee will assess the cost of having the Defect corrected, and the Contractor will pay this amount/ deducted from the Security Deposit.

34. Personnel

34.1 The Contractor shall employ the key personnel named in the Schedule of Key Personnel as referred to in the Contract Data to carry out the functions stated in the Schedule or other personnel approved by the Engineer or his nominee. The Engineer or his nominee will approve any proposed replacement of key personnel only if their qualifications, abilities,

and relevant experience are substantially equal to or better than those of the personnel listed in the schedule.

34.2 If the Engineer or his nominee asks the Contractor to replace the key personnel for the reason that either he is not competent or not carrying the work to the satisfaction of him, the Contractor shall replace him / her with equal or higher qualification immediately or within a maximum of seven days.

35 **The Works to be Completed by the Intended Completion Date**

The Contractor may commence execution of the works on the Start Date and shall carry out the works in accordance with the program submitted by the Contractor as updated with the approval of the Engineer or his nominee, and complete them by the Intended Completion Date.

36 **Possession of the Site**

The Employer shall give possession of all parts of the Site to the Contractor, free from encumbrances. If possession of a part is not given by the date stated in the Contract Data the Employer is deemed to have delayed the start of the relevant activities and this will be a Compensation Event.

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SECTION IV
TECHNICAL SPECIFICATIONS

**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF 36 NOS.IP
CCTV CAMERAS AT VARIOUS LOCATIONS OF CoPA INCLUDING 2 YEARS
GUARANTEE AND 5 YEARS COMPREHENSIVE AMC THEREAFTER.**

I. SCOPE OF WORK

A. General:

1. The Scope of Work is for providing IP CCTV cameras at various locations of Cochin Port including Container Freight Station (CFS) and making available the CCTV visuals in the CISF Control Room on the 7th floor of the New Administrative Building of Cochin Port. The cameras shall be erected on GI poles or on the existing buildings. Optical Fiber / Cat 6 cable shall be laid through HDPE/PVC pipe/ ground / clamping along walls from the nearest OFC available point of Cochin Port and connections provided by installing Outdoor/Indoor wall mounting rack, Poly carbonate junction box, SFU modules, POE switches, MCB's etc. Lightning arrestor, surge protector, earthing and UPS shall be provided for each camera. In addition OFC cable is proposed to be laid from the existing CCTV camera in front of Harbour House to Guest House and also from the BTP Berth to the existing camera near the Private Jetty.
2. At present, Cochin Port has a comprehensive network of NVR based IP cameras (47 Nos.) spread all over Willingdon Island (8 sq.km). List and type of existing cameras with locations provided is given below for reference. These 47 Nos. cameras (10 Nos. in CFS) are of HANWHA TECHWIN make and installed after 2016 and are under AMC/Guarantee. These cameras are NVR based with HDD's capable of recording upto 90 days and visuals available in the CISF control room on the 7th floor of the New Ad. Bldg. The data is being transmitted through CoPA's OFC cables where available and through BSNL Leased lines.
3. In the present proposal we intend to install additional 36 Nos. cameras at various locations of CoPA including CFS. Our existing CCTV surveillance is based on NVR. We propose to switch over from NVR to VMS which provides more control over the video data and allows for more efficient management of video surveillance networks. The VMS offered shall support upto500 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.

4. The Tenderer shall provide VMS system and Server compatible to the new CCTV cameras that are proposed to be provided in this tender and the old existing CCTV cameras already available at CoPA premises. All the CCTV cameras, Rack Mount Recorder, VMS, Server, HDD, High End Work station, Professional Display etc. shall be covered under OEM warranty for 5 years. The tenderer shall be required to visit the present network and cameras and accordingly submit the offer for total CCTV solutions.
5. The ANPR cameras are proposed to be installed at the two entry Toll Gates of CoPA. The ANPR cameras shall identify the registration numbers of vehicles entering / exiting through the toll gates(24 hours). There are 2 lanes for INCOMING and 2 lanes for OUTGOING in each Toll Gate. The CCTV footages shall be viewable in the CISF control room on the 7th floor of the New Administrative Building of CoPA. BSNL Leased circuit P2P Local 12 MBPS speed is available at each toll gate. The Bidder shall ensure that the CCTV visuals and number plates of vehicles are captured in the entire 24 hours. The Capacity of the cameras, poles etc. shall be designed accordingly. The ANPR Cameras will be accepted only after all images are seen to the satisfaction of the Engineer-in-charge. Presently we have installed ordinary IP cameras and remote surveillance is being done with BSNL LL facility.
6. In the Container Freight station (CFS), we propose to install 6 Nos. new IP cameras. Presently there are 10 Nos. (Infinova make) box type cameras, 8 Nos. Zoom type box camera (Hanwha make) and 2 Nos. Fish Eye Cameras (Hanwha make) inside CFS. The existing Hanwha/ Infinova cameras are to be re-positioned and fixed along with the new cameras inside CFS for effective surveillance of CFS. The successful bidder has to do the site study and submit the detailed layout positioning cameras and its accessories in an AutoCAD or any latest format. All cameras should be integrated in the as built layouts and the same should be configured to display for easy location identification. All cameras should be positioned according to the Cochin Port requirement and the vendor should ensure the coverage and quality footages of each area as a part of commissioning. 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 7th floor of the New Administrative Building.

Back up should be available after installation of new cameras for 90 days at all locations.

7. The Bidder shall visit the site and acquaint himself with the location and site conditions before quoting.

II. PROPOSED LOCATIONS & TYPE OF NEW CCTV CAMERAS

No.	Location	Type of Camera	Qty. of camera	
1	Ekm. Wharf Q 5 shed south end - For surveillance of wharf area of Q5	O/D box motorised VF IR camera	3	Nos.
2	Ekm. Wharf Q 6 shed MIDDLE - For surveillance of wharf area of Q6	O/D box motorised VF IR camera	2	Nos.
3	Ekm. Wharf Q 8 MIDDLE- For surveillance of wharf area of Q8	O/D box motorised VF IR camera	2	Nos.
4	Ekm. Wharf Q 9 - MIDDLE - For surveillance of wharf area of Q9	O/D box motorised VF IR camera	2	Nos.
5	Ekm. Wharf Old CT gate - For surveillance of whole CT area	PTZ Camera 2	1	No.
6	Ekm. Wharf Kiosk area of Sagarika Cruise Terminal- For surveillance of cruise passenger movements	O/D box motorised VF IR camera	1	No.
7	Ekm. Wharf Parking area of Sagarika Cruise Terminal- For surveillance of cruise passenger movements	O/D box motorised VF IR camera	1	No.
8	MATT. CHANNEL - BTP Berth (Near NCB) - For surveillance of BTP wharf area & also NCB area/Marine Jetty area	O/D box motorised VF IR camera	5	Nos.
9	MAT. WHARF - RO RO JETTY & Q1 berth- For surveillance of wharf area of RO-RO & Q1 perimeter boundary	O/D box motorised VF IR camera	2	Nos.
10	MAT. WHARF South Gate - For surveillance of unmanned isolated gate & perimeter boundary	O/D box motorised VF IR camera	2	Nos.
11	MAT.WHARF Q4 berth- For surveillance of wharf area & Q4 perimeter boundary	O/D box motorised VF IR camera	2	Nos.
12	Bristow Road Toll Gate	ANPR camera	2	Nos.
13	Indira Gandhi Road Toll Gate	ANPR camera	2	Nos.
14	NTB & STB near main gate area- For surveillance of sensitive area due to public movements near gate.	O/D box motorised VF IR camera	2	Nos.
15	COT - For watching movements around COT	PTZ Camera 2	1	No.
16.1	CFS inside - For surveillance of Cargo movement	Zoom type box camera	5	Nos.
16.2	CFS inside- For surveillance of Cargo movement	Fish eye camera	1	No.
	TOTAL NO. OF CAMERAS		36	Nos.

Back up proposed after installation of new cameras - 90 days at all locations including CFS					
DETAILS OF EXISTING CCTV CAMERAS					
I	2013	INFINOVA CAMERAS			Cameras to be checked, repositioned & connected to new Server. Present server is in 5th floor EDP Data centre
	CFS	IP Box type fixed camera	10	Nos.	
	Old Ad.Bldg. Access Control	IP Box type fixed camera	1	No.	
	New Ad.Bldg. Access Control	IP Box type fixed camera	1	No.	
	Marine Bldg. Access Control	IP Box type fixed camera	1	No.	
	Hospital Access Control	IP Box type fixed camera	1	No.	
	Fire station Access Control	IP Box type fixed camera	1	No.	
			15	Nos.	
II	2016	HANWHA TECHWIN			These 21 cameras Under AMC till 2024
1	New Ad. Bldg.	PTZ Zoom camera	1	No.	
2	Q6 berth	PTZ Zoom camera	1	No.	
3	Q2 berth	PTZ Zoom camera	1	No.	
4	E/Wharf gate	IP Box type fixed camera	2	Nos.	
5	M/Wharf gate	IP Box type fixed camera	2	Nos.	
6	CFS	IP Box type fixed camera	2	Nos.	
7	Toll gates	IP Box type fixed camera	4	Nos.	
8	OTB	IP Box type fixed camera	3	Nos.	
III	2017	HANWHA TECHWIN			
9	Embarkation Jetty	IP Box type fixed camera	2	Nos.	
10	Mattancherry Jetty	IP Box type fixed camera	1	No.	
IV	2017	HANWHA TECHWIN			
11	South End Rec.Area- A2	IP Box type fixed camera	2	Nos.	
	2019	HANWHA TECHWIN			
12	New Ad. Bldg. 6 floors	Dome type fixed camera	6	Nos.	These 23 cameras under AMC till 2026
13	Car parking-New Ad.Bldg.	Bullet type fixed camera	3	Nos.	
14	In front of Chairperson residence	Zoom camera box type	2	Nos.	
15	Inside CFS shed	Fish eye Dome camera	2	Nos.	
16	Inside CFS shed	Zoom camera box type	6	Nos.	
17	CISF Armoury of CoPA	Dome type fixed camera	1	No.	
18	CISF Armoury of CoPA	Zoom camera box type	2	Nos.	
19	Near Customs Comm. Bunglaw	Zoom camera box type	1	No.	
V	Jan-22	HANWHA TECHWIN			Under Guarantee
20	South End Rec. Area- A3	IP Box type fixed camera	3	Nos.	
TOTAL NO. OF CCTV CAMERAS AT PRESENT AT VARIOUS LOCATIONS					47 Nos.
In CFS - 10 Nos. Hanwha Techwin and 10 Nos. old Infinova cameras.					
Back up of existing cameras is available for 90 days at CISF CONTROL ROOM. At CFS only 30 days					

III. TECHNICAL SPECIFICATIONS

1. OUTDOOR BOX MOTORISED VF IR CAMERA			
No.	Features	Minimum Specifications	Compliance Y/N
1	Image sensor	1/2" progressive scan CMOS /CCD or better	
2	Lens	3.5 ~ 9 mm Motorized Varifocal with minimum of 2.5 x optical zoom, varifocal, Remote Focus & zoom, P-Iris Control, IR corrected	
3	Minimum Illumination / Light Sensitivity	Colour: 0.08 lux, at 50 IRE F1.6 B/W: 0.02 lux, at 50 IRE F1.6	
4	Video Compression	H.265, H.264 Main, Base Profile and MJPEG	
5	Resolutions and frame rates	2560x1920 @30FPS or better	
6	Power Supply	Power over Ethernet(PoE) IEEE 802.3af/802.3 at Type 1 Class 3 Typical 7.7 W, max 13 W 20–28 VDC, typical 7.8 W,max13.5 W 20–24VAC, typical12.4 VA, max20 VA	
7	IR illumination	50 Metres or better	
8	Video streaming	Multi-stream with variable/ configurable frame rate & bit rate for preview and recording H.265 or better	
9	Audio Streaming	Input and Output (Two way)	
10	Supported protocol	IPv4, IPv6 , HTTP, HTTPS,SSL/TLS, FTP, SMTP, Bonjour, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS/DDNS, RTSP, RTP, SRTP, TCP, UDP, IGMP, ICMP, RTCP, DHCP, ARP, LLDP, UPnP, NTP, SSH, QoS etc.	
11	ONVIF	ONVIF® Profile G, ONVIF® Profile S and ONVIF® Profile T	
12	Operating Conditions	Temp: upto 55°C or better Humidity 10–100% RH (condensing)	
13	Interface	RJ45 10BASE-T/100BASE-TX PoE	
14	Memory card slot	512Gb or better	

15	Compliance	NDA compliant. The CCTV Camera and its accessories shall not be Chinese Products to comply with the Atmanirbar Bharat.	
16	Internal Memory	1024 MB RAM, 512 MB Flash	
17	Security	Password protection, IP address filtering, HTTPSa encryption, IEEE 802.1Xa network access control, Digest authentication, User access log Brute force delay protection, signed firmware, Device ID protection	
18	Cyber security	OEM shall have STQC/ VAPT certifications.	
19	Firmware Upgrade	The firmware upgrade shall be done through web interface. The firmware shall be available free of cost	
20	Chipset/Processor	From same OEM	
21	Housing	IP67, NEMA 4X and IK10 rated casing	
22	Certifications	CE ,FCC,UL	
23	Service Centre	OeM/Bidder should have service centre in India for past 10 years	
24	OeM Warranty	Minimum of 5 Years	
25	Approved make	AXIS/ AVIGILON/ BOSCH/ HONEYWELL/ MOBOTIX	

2. OUTDOOR TYPE PTZ CAMERA			
No.	Features	Technical Specification	Compliance Y/N
1	Image Sensor	1/3 inch progressive scan CMOS /CCD or better	
2	Operating Frequency	50 Hz	
3	Day/ Night Operation	IR Cut Filter Automatic /Colour/B/W	
4	Minimum Illumination	Colour: 0.05 lux at 30 IRE F1.36 B/W: 0.001 lux at 30 IRE F1.36, 0 lux with IR illumination on	

5	High-speed pan-tilt functionality	360° endless pan range and a 180° tilt range	
6	Optical Zoom	30x optical zoom or better, 12x digital zoom or better	
7	Focal length	5 ~ 250mm Varifocal lens with 30x optical zoom or better, 12x digital zoom or better	
8	Pan and tilt speed	Pan: 360° endless, 0.05°/s to 150°/s Tilt: -90° to +90°, 0.05°/s to 150°/s	
9	Image Resolution	1920x1080p (HDTV 1080p) to 640x360	
10	Compression	H.265 / H.264 or higher	
11	Electronic Shutter	2 s to 1/12000 s or better	
12	Wide Dynamic Range	120 dB	
13	Essential features	Motion Detection, Electronic Image Stabilization, Built In Heater, FAN & Temperature Control	
14	Availability of active alerts on speaker & Radars	The camera should send trigger via HTTP/HTTPS to any compatible IoT devices. Seamless integration with Network speaker, Network Radar, Camera and VMS with combined and individually configuration.	
15	Event Triggers	Detectors: live stream accessed, shock detection, day/night mode Hardware: network, temperature, fan Input Signal: manual trigger, virtual inputs PTZ: auto tracking, error, moving, preset reached, ready Storage: disruption, recording System: system ready Time: recurrence, use schedule	
16	IR illumination	500 Mtr or better	
17	Chipset	From Same OeM	
18	Edge Storage slot	SD/SDHC/SDXC, Minimum 512 GB	
19	Protocols	IPv4, IPv6, HTTP, HTTPS, SSL/TLSa, QoS, FTP, SMTP, Bonjour, UPnP, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS/DDNS, NTP, RTP, SRTP, TCP, UDP, IGMP, ICMP, DHCP, ARP, RTCP, SSH	

20	Security	Password protection, IP address filtering, HTTPSa encryption, IEEE 802.1Xa network access control, Digest authentication, User access log Brute force delay protection, signed firmware, Device ID protection	
21	Cyber security	OeM shall have STQC/ VAPT certifications.	
22	Firmware Upgrade	The firmware upgrade shall be done through web interface. The firmware shall be available free of cost	
23	Interface	RJ 45, 100 Base TX	
24	Enclosure	IP66 or higher, NEMA 4X- and IK10-rated metal casing (aluminium), polycarbonate (PC) clear dome, sunshield (PC/ASA)	
25	Power requirements	High Power over Ethernet (High PoE), Camera consumption: typical 25 W (+/- 3W), max 75 W or below, NEMA TS 2 (2.2.7)	
26	Operating Conditions	Temp. : Upto 55 °C or better Humidity : 10-100 %	
27	Certification	UL, CE, FCC	
28	Compliance	NDA compliant. The CCTV Camera and its accessories shall not be Chinese Products to comply with the Atmanirbar Bharat.	
29	Integration Interface/ Interoperability	ONVIF® Profile G, ONVIF® Profile S and ONVIF® Profile T	
30	Service Centre	OeM/Bidder should have service centre in India for past 10 years	
31	OeM Warranty	Minimum of 5 Years	
32	Approved make	AXIS/ AVIGILON/ BOSCH/ HONEYWELL/ MOBOTIX	

3. OUTDOOR TYPE ANPR / ZOOM TYPE BOX CAMERA

No.	Features	Minimum Specifications	Compliance Y/N
1	Image sensor	1/3" progressive scan RGB CMOS or better	
2	Lens	5.5~62mm Varifocal Lens With minimum of 12xOptical zoom	

3	True Day and Night	Automatic with IR cut filter	
4	Minimum Illumination / Light Sensitivity	Colour: 0.16 lux at 50 IRE F1.4 B/W: 0.03 lux at 50 IRE F1.4, 0 lux with IR illumination on	
5	Video Compression	H.265, H.264 Main, Base Profile and MJPEG	
6	Resolutions and frame rates(H.264)	Minimum 1920 x 1080 @ 25 fps(1080p) or better (2 MP) Frame Rate : Minimum of 50 FPS in all resolution.	
7	Video Streams	1920 x 1080@120 FPS(2 MP)	
8	Power Supply	Power over Ethernet(PoE) IEEE 802.3af/ 802.3 at Type 1 Class 3 Typical 7.7 W, max 13 W 20–28 VDC, typical 7.8 W, max13.5 W 20–24VAC, typical12.4 VA, max 20 VA	
9	IR illumination	50 Metres or better	
10	Pan/Tilt/Zoom	Digital PTZ and Preset positions. 8x optical zoom, preset positions	
11	Digital I/O (Alarms)	2 Configurable Input/ Output Ports	
12	Audio	Two way	
13	Image Settings	Saturation, contrast, brightness, sharpness, Forensic WDR: Up to 120 dB depending on scene, defogging, white balance, day/night threshold, exposure mode, exposure zones, compression, mirroring of images, electronic image stabilization, barrel distortion correction, text and image overlay, dynamic text and image overlay, privacy masks Rotation: auto, 0°, 180° Scene profiles: license plate, forensic, vivid, traffic overview	
14	Text Overlay	Date & time and a customer-specific text, camera name, graphical image etc	
15	Wide Dynamic Range	Minimum 120db or better	
16	Event Triggers	Analytics, edge storage events, Supervised external input, virtual inputs through API, shock detection	

17	Event Actions	Pre- and post-alarm video buffering File upload: FTP, SFTP, HTTP, HTTPS, network share and email, Notification: email, HTTP, HTTPS, TCP and SNMP trap	
18	Firmware Upgrade	The firmware upgrade shall be done though web interface. The firmware shall be available free of cost	
19	Interface	RJ45 10BASE-T/100BASE-TX PoE	
20	Operating conditions	Temp: 55°C or better Humidity 10–100% RH (condensing) or better	
21	Memory card slot	512 Gb or better	
22	Built-In Analytics	Motion Detection, Tampering, Electronic Image Stabilization	
23	Availability of active alerts on speaker & Radars	The camera should send trigger via HTTP/HTTPS to any compatible IoT devices. Seamless integration with Network speaker, Network Radar, Camera and VMS with combined and individually configuration.	
24	Installation Assistance	License plate capture assistant, remote zoom, pixel counter, levelling assistant, autorotation	
25	Supported Protocol	IPv4, IPv6 , HTTP, HTTPS,SSL/TLS, FTP, SMTP, Bonjour, SNMP v1/v2c/v3 (MIB- II), DNS, DynDNS/DDNS, RTSP, RTP, SRTP, TCP, UDP, RTCP, DHCP, ARP, LLDP, UPnP, NTP, SSH, QoS etc.	
26	Cyber security	OeM shall have STQC/ OWASP/UL Cyber security Assurance Program Test Methods certified from Globally renowned laboratories complying to risk assessment criteria for security threat as per UL2900-1 or complying to penetration test report with minimum Level A grading for proper defense against security vulnerabilities in devices to be submitted along with the bid	
27	Security	Password protection, IP address filtering, HTTPS encryption, IEEE 802. 1X network access control, Digest authentication, User access log, centralized certificate management, Brute force delay protection, signed firmware	
28	ONVIF	Profile S & G or better	

29	Compliance	NDA Complaint. The CCTV Camera and its accessories shall not be Chinese Products to comply with the Atmanirbar Bharat.	
30	Chipset/Processor	From same OeM	
31	Housing	IP 66, NEMA 4X and IK 10 Rated impact resistant housing, Anti Glare Coating	
32	Certifications	CE , FCC, UL , IEC/EN 62262 IK10 body, NEMA 250 Type 4X	
33	Service Centre	OeM/ Bidder should have service centre in India for past 10 years	
34	OeM Warranty	Minimum 5 years	
35	Approved make	AXIS/ AVIGILON/ BOSCH/ HONEYWELL/ MOBOTIX	

4. INDOOR TYPE FISH EYE CAMERA

No.	Features	Minimum Specifications	Compliance Y/N
1	Image Sensor	1/1.8" 5MP CMOS/ CCD or better	
2	Lens	1.6 mm or better	
3	Minimum illumination	Color:0.16 lux or better	
4	Video Compression	H.265/ H.264: Main/Baseline/High, MJPEG	
5	Resolution	Original View: 2048x2048, 1280x1280, 1080x1080, 960x960, 768x768, 720x720,	
6	Backlight compensation	BLC , HLC , WDR, SDR	
7	WDR	120 dB or better	
8	Digital Image Stabilization	Off / On	
9	Defog	Off / Auto / Manual	
10	Motion Detection	Off / On Min 6 zones	
11	Privacy Masking	Off / On Min 3 zones	

12	Angle of view:	H: 192°(Wide) V: 192°, D: 192°	
13	Storage and Recording	Micro SD/SDHC/SDXC min 256Gb or better	
14	Network	10/100 Base-T Ethernet via RJ-45 connector	
15	Protocols supported	IPv4, IPv6 , HTTP, HTTPS,SSL/TLS, FTP, SMTP, Bonjour, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS/DDNS, RTSP, RTP, SRTP, TCP, UDP, IGMP, ICMP, RTCP, DHCP, ARP, LLDP, UPnP, NTP, SSH, QoS etc.	
16	Input Voltage / Current	PoE (IEEE802.3af, Class 3)	
17	Operating Temperature	upto 55°C or better	
18	Ingress Protection / Vandal Resistance	IP 42, IK10	
19	Security	Password protection, IP address filtering, HTTPSa encryption, IEEE 802.1Xa network access control, Digest authentication, User access log Brute force delay protection, signed firmware, Device ID protection	
20	Cyber security	OEM shall have STQC/ VAPT certifications.	
21	Certification	UL, CE, FCC, NDAA	
22	Integration Interface/ Interoperability	ONVIF® Profile G, ONVIF® Profile S, and ONVIF® Profile T	
23	Service Centre	OeM/Bidder should have service centre in India for past 10 years	
24	OeM Warranty	Minimum of 5 Years	
25	Approved make	AXIS/ AVIGILON/ BOSCH/ HONEYWELL/ MOBOTIX	

5. VIDEO MANAGEMENT SOFTWARE		
No	Feature Description	Compliance (Yes/No)
1	The Video Management System (VMS) software shall be used to view live and recorded video from capture cards and IP devices connected to local and wide area networks. The VMS software shall have a client/server-based architecture that can be configured as a standalone VMS system with the client software running on the server hardware and/or the client running on any network-connected TCP/IP workstation. Multiple client workstations shall be capable of simultaneously viewing live and/or recorded video from one or more servers. Multiple servers shall also be able to simultaneously provide live and/or recorded video to one or more workstations.	
2	The VMS shall be supplied with minimum 25 nos. of thick clients and 10 mobile clients	
3	The Video Management System (VMS) shall be a software package for comprehensive management of live and recorded video, and associated audio and data.	
4	General Functionality - The VMS shall possess the following general characteristics	
4.1	The VMS shall provide effective monitoring of video from IP cameras and encoding devices, two-way audio and data in real time over local and wide area networks	
4.2	The VMS supports interactive and multi-level mapping	
4.3	The single-screen administration across multiple servers and systems, including:	
4.3.1	It shall support global configuration and monitoring of camera, encoder, and storage settings across the enterprise	
4.3.2	It supports simultaneous administration of all users on multiple servers	
4.3.3	It supports configuration of user authentication using LDAP/Active Directory features of the network	
4.3.4	It supports e-mail and text (SMS) notifications	
4.4	The VMS shall automatically identify and assign IP address to compatible IP cameras and encoders with status display	
4.5	The VMS should support at least 500 Cameras or Encoders from different Manufacturers	
4.6	The client software allow remote access to live and recorded video, including access from mobile devices and support simultaneous access to video from multiple servers	
4.7	The VMS should support 2-way audio communication between server, client, and camera	
4.8	Suspect Tracking : The VMS should provide forensic search operation based on the powerful attribute search feature. The operator can select any person in the camera field of view and search for the appearance of the selected person based on the attire attributes in the selected cameras for the selected duration. The attribute search should show persons with	

	matching attributes in a grid. It should be possible to click on any match to view the playback video of that instant.	
5	Architecture	
5.1	The VMS shall have a client/server-based architecture that can be configured as a standalone VMS with the client software running with equal functionality on the server hardware and/or the client running on any network-connected TCP/IP workstation.	
5.2	The VMS shall record and retrieve video, audio and alarm data and provide it to the VMS clients upon request.	
5.3	The Client Characteristics shall be as per following:	
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 color coded status for messages which are sent, delivered and read. The administrator should have access to all the messages being exchanged among the operators.	
5.3.2	The Client Software View live video and audio, recorded video and audio and be able to configure the complete system all from a single application.	
5.3.4	The Client Software will have full compatibility with all available features of the VMS server software	
5.3.5	The Client Software shall have Add and Remove features based on the permissions of the user and the licensed functionality	
5.4	The Web Client shall have following features:	
5.4.1	The Web Client can view Live and Recorded Video	
5.4.2	The Web Client can control Pan-Tilt-Zoom movement for PTZ Cameras	
5.4.3	It can activate triggers	
5.4.4	It can get connected with multiple VMS Servers simultaneously	
5.5	The Mobile Client shall have following characteristics:	
5.5.1	The mobile application shall support Apple IOS, Google Android, and Microsoft Windows Mobile operating systems.	
5.5.2	It can remotely view Live and Recorded Video from any Video Server	
5.5.3	The web application should support HLS and MJPEG streaming.	
5.5.4	It can monitor events configured by the Client	
5.5.5	The mobile client should allow uploading of the snaps and video clips from within the application to the central VMS. The central VMS should show the uploaded snaps and videos from the mobile users.	
5.6	The VMS software shall allow the user to have any combination of VMS client applications running on any of the supported operating systems and be able to connect to any of the VMS servers running on any of the supported operating systems. Hence, Multiple client workstations shall be capable of simultaneously viewing live and/or recorded video from one or more servers.	
5.7	The VMS software shall have the capability to run multiple client applications simultaneously on one workstation with multiple monitors and at least 12 monitors shall be configurable on a single workstation with one (1) client application running on each monitor.	

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.	
6	Video Streaming	
6.1	Video formats supported: MJPEG, MPEG-4, H.264, H.265	
6.2	Each video stream shall have the ability to be recorded, viewed live, saved to views, exported and available in search and playback.	
6.3	Streams shall be individually configurable for recording schedules and storage rules	
6.4	Multi-streaming - The VMS shall allow the setting of multiple, independent video streams from the IP camera, each configurable for frame rate, resolution and quality level.	
7	Recording	
7.1	The Recording should be continuous, uninterrupted and unattended recording of all video and audio transmitted to the VMS, including during times of administration and configuration of any feature	
7.2	The VMS should enhance the videos received from the cameras by adjusting hue, saturation, contrast, brightness, sharpness, IRIS parameters with automatic or manual focus adjustment.	
7.3	The system shall allow to configure each video input’s recording time on an hourly basis, to further allow the user to schedule when to record on motion, when to record on event and when to not record	
7.4	The video file shall contain the data of the video, audio, and associated metadata.	
7.5	The index file shall contain the index of the metadata from the network device. When the VMS searches for video, it shall retrieve and display the information in the index files.	
7.6	A bookmarking feature shall allow the tagging, naming, and retention of video clips. The VMS shall bookmark the display layout with selected distribution of cameras across the panel with a mix of live and archived video.	
7.7	The events dashboard should be available with multiple filter parameters such as - by camera, by use case, by camera groups, and the easily selectable duration such as today, last 7 days, last 30 days, and calendar widget, etc.. Reports should be exported in formats such as excel and CSV. The dashboard should also have the graphical representation of the reports in terms of the bar charts and pie charts.	
7.8	The VMS shall support a mix of multiple storage technologies such as local storage/ DAS/ SAN/ NAS or hybrid	
7.9	The VMS shall support configurable “at most” rules that will automatically delete video for a camera after a specified amount of time. The VMS also shall support configurable “at least” rules that will delete newer video on other cameras to preserve older video from cameras with an “at least” rule specified.	

8	Video Archiving	
8.1	The VMS shall provide for the archival of video, audio, and data files, as determined by rules, events, or manual selection. Each archive target has its own set of rules for what cameras and video are archived and when.	
8.2	The VMS shall support CIFS and NFS network shares for archive target locations. It shall be able to archive video to multiple locations and base the archive on camera, event type or an archive schedule.	
8.3	The VMS shall record the entire screen of the operator including any matrix of cameras visible and other desktop activity being performed by the user outside of the VMS client.	
8.4	VMS shall be able to archive continuously or on a scheduled basis like weekly schedule and multiple schedules may be combined to derive specific schedule.	
9	Events	
9.1	The VMS should support following Events	
9.1.1	Video motion, critical video data and Incident Video data.	
9.1.2	Video loss of analog video signals	
9.1.3	Device, Server and System Health	
9.1.4	IP camera connection	
9.1.5	Analytics Rule	
9.2	The VMS should support actions on events like Record Video, Output Trigger, Send an E-mail supporting SSL and TLS protocols for encrypted communications. And support AES128 encryption for the communication.	
9.3	The VMS shall call a PTZ Camera Preset as action on events	
9.4	The VMS client shall be configurable to automatically switch views on any event within the event monitoring function.	
10	Search and Playback	
10.1	The VMS can search and play back recorded video, audio and events from VMS servers	
10.2	The VMS shall search and play back video from multiple cameras simultaneously in a synchronized multi-camera layout along with search recorded video based on time, date, video source and image region, with results displayed as both a clickable timeline	
10.3	The VMS shall perform a visual thumbnail search, selecting one image per camera per set time period and can play video from selected image along with zoom in to a time range around selected image	
10.4	The Archived video shall be seamlessly searched during any video search, eliminating the need for a user to separately search the archive location.	
11	Video Information Display	
11.1	The VMS shall have a live display mode, wherein a user shall be able to view live video, live audio and alarm information.	
11.2	The VMS client must feature adaptive bit rate adjustment to conserve bandwidth, displaying cameras in full resolution when viewed individually and switching to lower resolution when in matrix view.	
11.3	The VMS shall allow viewing of cameras in logical groups and preset views.	

11.4	The VMS shall be able to automatically cycle through two or more saved views to create a video tour, with a configurable dwell time for each view.	
11.5	The VMS shall support the use of a panoramic lens on an analog or IP camera. The VMS client shall de-warp the image on both live and recorded video.	
11.6	The VMS shall allow the customization of the user interface to display software (soft) triggers and initiate actions.	
11.7	The VMS shall provide the ability to instantly push selected cameras, layouts, tours, groups or entire views to another client monitor, such as a public view monitor or a video wall.	
11.8	The VMS shall support overlay controls which appear when hovering over a camera in live view :	
	Appearance: text color, font, style, location, camera name, camera no.	
	Control Types: audio inputs and outputs, digital zoom	
11.9	The VMS shall be able to display the following additional system information:	
	a) users currently logged in to the system	
	b) system log containing a detailed history of system processes	
11.10	The VMS shall support display of notifications to the user for common setup tasks that should be performed, including:	
	a) Configuring motion on all cameras	
	b) Changing the default password	
	c) Configuring email notifications	
	d) Configuring of multi-streaming	
	e) Time delta between server and camera	
12	PAN, TILT & ZOOM	
12.1	The VMS shall allow control of PTZ cameras to authorized users and be used to maneuver and zoom a PTZ camera at adjustable speed.	
12.2	The VMS shall allow following methods of controlling a PTZ camera to be available:	
12.2.1	PTZ graphics control windows	
12.2.2	live graphic overlay PTZ control icons	
12.2.3	keyboard control (up, down, left, right arrows; page up, page down for zoom)	
12.2.4	PTZ presets	
12.2.5	digital PTZ	
12.2.6	USB joystick	
13	Mapping	
13.1	The VMS shall have a map capability, accessible to users with the appropriate permission levels.	

13.2	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.	
13.3	The VMS shall support GIS maps and online maps such as Google, Bing, Open street maps.	
13.4	The VMS should show event notification from the cameras on the map itself. The operator should be able to click on the event notification of a particular camera on the map and the VMS should open the event window on the operator screen.	
14	Export	
14.1	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.	
14.2	Export file formats supported: .exe, .avi, .mjpeg, .mp4 and .avf	
14.3	The VMS standalone player shall be able to authenticate that the video has not been tampered with using a AES256 bit encryption	
15	Administration & Configuration	
15.1	The VMS system can authenticate the User's Permission by Active Directory or LDAP	
15.2	The VMS system can allow for a user's permissions to be configured across multiple servers from a single screen	
15.3	The VMS system shall record an audit trail of when users log in that shows what changes they have made, what video they have viewed and what they have exported	
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.	
16	Reporting	
16.1	The VMS provides color coded status of servers, cameras, and unacknowledged events in the following categories in list or chart format:	
16.1.2	Critical as 1) server or camera device not detected and 2) event occurring and unacknowledged	
16.1.3	Warning as 1) Health warning on server (such as temperature, storage alarm, archive alarm, CPU fan), 2) Server license subscription expiring soon, 3) Event unacknowledged but open, 4) Event unacknowledged but closed	
16.1.4	Normal as 1) Server or camera connected and operating and 2) Event acknowledged and closed	

16.1.5	The VMS shall allows creation of Reports to a. view and manage a list of unacknowledged events, b. view a list of open events and c. search for specific events based on various criteria	
16.1.6	The VMS should periodically check the gaps in live recording of the cameras and should check with the on-board storage of the camera. In case of a gap, the VMS should synchronize the video recording on the on-board storage with the VMS storage. Such synchronized storage should be displayed with different color for quick attention of the operator.	
16.1.7	VMS shall support Edge based & server Based Video analytics.	
16.1.8	VMS shall generate the events& alarm wrt to the camera edge based analytics like Perimeter, intrusion, line crossing etc which are available in camera edge.	
17	Failover - (shall support for future requirement)	
17.1	The VMS system should have N:1/N:0/N:N failover/redundancy mechanism architecture	
17.2	The VMS shall support automatic failover/redundancy for recording	
17.3	The VMS shall support manual failover/redundancy for maintenance purpose	
18	This shall allow operations managers and system integrator to build customized video surveillance networks that meet their exact requirements. Software suite shall be a scalable and flexible video management system that could be easily managed and monitored. Scalable system shall permit retrieval of live or recorded video anywhere, anytime on a variety of clients via a web browser interface.	
19	The VMS should have built in Video analytics that are properly integrated and certified.	
20	The VMS shall be capable of being deployed in a virtualized environment without loss of any functionality.	
21	All CCTV camera video signal inputs to the system shall be provided to command control Center, and the transmission medium used shall best suit the relative camera deployments and access to the CCTV Network.	

6. Recording Server Specification			
No.	Description	Specification	Compliance/ Deviation
1	Type	Support min128 Channel Rack-mountable NVR or Recording Server	
2	Storage Capacity	Should have Minimum 20 Hard Disk Slots. Supports upto340TB including RAID5 and 6. with each 18TB per SATA Min 256GB SSD for OS & recording application software	
3	RAID Level	RAID 5/6 (Mega RAID SAS 9361-8i or better)	
4	Network Connections	Dual Gigabit Ethernet (RJ-45 port) – 10/100/1000 Mbps.	
5	Operating System	Linux	

6	Processor	Intel Xeon W processor or better with min 8 core, min 3.4Ghz, up to 4.8GHz at turbo & 16MB cache.	
7	Memory	32GB DDR3 or better	
8	Video Compression	H.264, H.265, MJPEG	
9	Recording Support	Support the simultaneous recording of min 128 IP cameras at 1080p resolution at 15 fps	
10	Synchronous Playback	Minimum 16 Channel	
11	Recording Resolution	4K, 5MP, 1080P, 720P, D1	
12	Network Protocol Support	HTTP/HTTPS, TCP/IP, RTSP, UDP, NTP, DHCP, IPC Search	
13	Bandwidth	1900Mbps useable or better	
14	Minimum Function / Features	• ONVIF Profile S or better	
		• Should be able to recover the video from edge storage of Network Camera in case of network failure automatically once the network is stabilized.	
		• Should be able to allocate variable disk space to different cameras to record video for a longer time on the high-security camera.	
		• Water Mark or E-signature	
		• Storage expansion if required	
15	Input Voltage	100~240 V AC, 50/60 Hz. Dual Power. Any power converter that is required to power the NVR has to be supplied by Bidder. With redundant power supply	
16	Operating System temperature	10°C ~ 25°C or better	
17	Approval	FCC, BIS, UL	

7. Minimum Hardware Specification for Client workstation		
No.	Feature Description	Bidder Compliance
		(Yes/No)
1	CPU : Intel i7 or better	
2	RAM : 16 GB or better	
3	OS Drive : 128 GB SSD or better	
4	Operating System : Microsoft Windows 10 or Ubuntu Linux 18.04	
5	NIC : 2 x 1 Gbps	
6	Min 2GB NVIDIA or more similar discrete graphics card for 2 monitor 32 streams	
Note: If VMS OEM recommends higher server configuration, please specify the higher one.		

8. **Specification for Rack Mount Recorder**

BOQ				
No.	DESCRIPTION	QTY	UNIT	Make & Model
1	<p>Supply, Installation, Testing and Commissioning of Video Management Server with the following features:</p> <p>The Video Management System (VMS) software shall be used to view live and recorded video from IP devices connected to local and wide area networks. The VMS software shall have a client/server-based architecture that can be configured as a standalone VMS system with the client software running on the server hardware and/or the client running on any network-connected TCP/IP workstation. Multiple client workstations shall be capable of simultaneously viewing live and/or recorded video from one or more servers. Multiple servers shall also be able to simultaneously provide live and/or recorded video to one or more workstations. The VMS shall be supplied with a minimum of 25 nos. of thick clients and 10 mobile clients. The VMS client should be run on Windows or Linux platform.</p> <p>The VMS should support more than 1000 Cameras or Encoders from different Manufacturers (minimum 50). The VMS should support 2-way audio communication between server, client, and camera. Video formats supported: MJPEG, MPEG-4, H.264, H.265. Each video stream shall have the ability to be recorded, viewed live, saved to views, exported, and available in search and playback. Supports Multistreaming. Support local HDD disk storage, iSCSI extended storage, and auto-fill back from Camera SD cards.</p> <p>Supports events: Video motion, operating on the encoded video, Device, Server and System Health, video loss, Analytics Rule.</p> <p>Support actions on events like Record Video, Output Trigger, Send an E-mail supporting SSL and TLS protocols for encrypted communications, support nested or embedded maps & can place, view and activate soft triggers from the MAP. Supports Export file formats supported: .exe, .avi, .ps, .mov, .psx.</p> <p>The VMS shall be enabled for integration with any external Video Analytics Systems & camera edge based VAs also. Bidder shall consider camera edge based analytics or separate server based analytics for delivering proper events & alarms with respect to the VA required (Bidder shall consider all VA mentioned in the camera specification).</p> <p>The VMS Server shall support failover architecture & support automatic failover for recording.</p> <p>License : Bidder shall consider 200 numbers of Camera licenses, which shall be allocated to VMS/recording server as per the VMS architecture.</p> <p>Warranty 5 years & Software support with upgrades for 5 more years</p>	1	Lot	

2	Supply, Installation, Testing and Commissioning of Central Video/ database Management Server with CPU : Intel i7 or better, RAM : 16 GB or better, OS Drive : 128 GB SSD or better Operating System : Microsoft Windows 10 or Ubuntu Linux 18.04, NIC : 2 x 1 Gbps as per Tender specification. Warranty 5 years & Software support with upgrades for 5 more years	1	Nos	
3	Supply, Installation, Testing and Commissioning of Camera Recording Server/NVR, Supports 128 Camera Recording, Capacity: Should have Minimum 20 Hard Disk Slots. Supports upto 340TB including RAID5 and 6. , Min 256GB SSD for OS & recording application software RAID Level: RAID 5 and 6, Network Connections: Dual Gigabit Ethernet (RJ-45 port) – 10/100/1000 Mbps. Operating System: Linux, Processor: Intel Xeon W processor or better with min 8 core, min 3.4Ghz, up to 5GHz at turbo & 16MB cache, Memory: 32GB DDR3 or better, Video Compression:H.264, H.265, MJPEG, Recording Support: Support the simultaneous recording of min 128 IP cameras at 1080p resolution at 15 fps Synchronous Playback: Minimum 16 Channel, Recording Resolution: 4K, 5MP, 1080P, 720P, D1, Network Protocol Support: HTTP/HTTPS, TCP/IP, RTSP, UDP, NTP, DHCP, IPC Search, Bandwidth: 1900Mbps useable , Minimum Function / Features: ONVIF Profile S or better, Should be able to recover the video from edge storage of Network Camera in case of network failure automatically once the network is stabilized, Should able to allocate variable disk space to different cameras to record video for a longer time on the high-security camera, supports tamper proof video export, Storage expansion if required . Hardware Warranty 5 years & Software support with upgrades for 5years	2	Nos	

9. General requirements of camera.

Both PTZ and fixed cameras shall be supplied with its mounting arrangements as per the site conditions, i.e., wall or pole mounted with all required accessories and fitments. The entire camera shall be provided with IP66 housing. Outdoor housing (IP66) should be from the same camera manufacturer. It should be die- cast and extruded Aluminium construction.

- (1) POE switch shall be supplied and installed complete with all accessories for viewing the video signals individually at Centralized Video Surveillance system control room (CVSS) as per technical specification.
- (2) The Camera Power supply is for extending the UPS power to the PTZ cameras from the UPS out socket. The scope includes wiring materials, its accessories, plug & Sockets if required. The method measurement is taken as unit rate.
- (3) The Power cable is intended for drawing raw power from available source to the UPS to be provided near camera location.
- (4) In case where the distance of NVR and camera is more than 70 mtrs, OFC can also be used for which necessary splicing arrangements shall be supplied by the firm without extra cost.
- (5) HDPE pipe shall be suitable for drawing the CAT 6, STP cable/OFC conforming to relevant IEC/BIS. The HDPE material shall conform to ASTM D 3350. Necessary clamps, fasteners etc shall be supplied when the pipe is drawing through wall/structures etc.
- (6) The PVC conduits are meant for drawing power cables. The size of the conduits shall be 38mm diameter. Saddles for fixing conduits shall be heavy gauge non-metallic type with base. Bends, couplers etc of solid type shall also be used along with conduits as per requirement.

10. Supply and laying of HDPE pipe below the ground.

HDPE pipe are proposed for laying the OFC and data cables for use of CCTV communications. The HDPE pipes shall be laid through open trenches, hard surfaces after excavation of same at about 50 CM depth and excavated portion shall be backfilled , compacted with excavated material with compaction without damaging the pipe and cables. Lose soil cover shall be provided above the HDPE pipe for avoiding damage to the cables and pipes. For vehicle crossing areas sufficient depth shall be maintained to avoid damage to cables. Cable route marker shall be provided without any extra cost at required interval. Excavation shall be done by JCB/ manual by taking extreme care without damaging the existing cable and other utilities in the location. If any damaged has occurred to the utilities the contractor shall make good the damaged portion by his own cost.

11. Resurfacing the hard surface after excavation.

The excavated hard surface shall be resurfaced with Cement Concrete after proper compacting the area .

12. Fixing and Foundation for Poles

Poles supplied for fixing the CCTV shall be erected with suitable CC foundation with at least 30 CM diameter and 50 cm depth from ground and 20 CM above ground. Sufficient supports shall be given at bottom of poles for proper fixing of same. At the top of the poles necessary GI sheet cover shall be provided for the protection of Cameras as per requirements.

IV. ANNUAL MAINTENANCE CONTRACT

1. The Annual Maintenance Contract shall cover the items as per Schedule – B2.

The contractor should enter into a 5 years AMC with the Port Authority, after the successful completion of 2 years warranty period, for the upkeep of the system and the cost of the same should be shown separately for each year in the price schedule (Schedule-B 2).

2. The AMC should be a comprehensive one and covers repairs and servicing to the complete system (software and hardware and connected accessories**), replacement of all parts required for the satisfactory functioning of the system and the breakdown maintenance. The AMC rate shall be inclusive of the following items.**

- a) Cost of spare parts.
- b) Cost of all types of cables and other accessories

During AMC period the contractor would be bound to ensure that all the equipments and other software hardware systems are in working condition.

3. The AMC period will start on completion of the mandatory guarantee period. A separate order will be issued for the Annual Maintenance Contract, before the completion of the Warranty period of the installation.

4. The Port Authority shall have the option to terminate the Annual Maintenance Contract, any time before the completion of the AMC period. In such cases, only pro-rata AMC amount will be paid. If any disputes arise, the same shall be settled through the Courts in Kochi.

5. 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 12 hours. If the equipment become nonfunctional beyond the period of 12 hours due to delay in rectifying the defect. For any delay beyond 12 hours, a penalty of ½ % per week subject to a maximum of 10 % of the total AMC Value applicable for that year will be deducted as Liquidated Damages. However the routine maintenance with prior approval shall not be counted for arriving at the availability of the system.

6. The routine /usual visit/ inspection/preventive maintenance should be done at least once in a month and the report submitted to Dy. Chief Mechanical Engineer (Electrical). This visit shall be done with the permission/in the presence of the officer concerned and should cause only minimum disturbance to the functioning of the system.
7. Payment for AMC
 - a) AMC will start after expiry of the guarantee period. Separate order shall be issued for the AMC on successful completion of guarantee period 2 years.
 - b) AMC charges shall be released on successful completion of comprehensive maintenance on half yearly basis subject to the certification of Engineer in charge.
8. During the AMC period of 5 years, if the system as a whole or any accessory/ equipment/ item of the system is rendered non-operational a penalty of ½ % per week subject to a maximum of 10 % of the total AMC Value applicable for that year will be deducted as Liquidated Damages.
9. However the routine maintenance with prior approval shall not be counted for arriving at the availability of the system.

V. APPROVED MAKES

CCTV CAMERA	AXIS/ AVIGILON/ BOSCH/ HONEYWELL/MOBOTIX
VMS	ALGOVISION / GENETEC /MILESTONE/VIDEONETICS
Work station/ PC	DELL/ LENOVO/ HP
NETWORK SWITCH	ALLIED TELISIS / CISCO / HP / JUNIPER / NETGEAR
NETWORK/OUTDOOR RACK	PRESIDENT / RITTAL / NETRACK
SURGE PROTECTOR	APC / OBO / DHEN
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

SECTION V

GENERAL DESCRIPTION OF WORK

1. General

Where it is mentioned in the Specifications that the Contractor shall perform certain Work or provide certain facilities, it is understood that the Contractor shall do so at his own Cost.

The materials, design and workmanship shall satisfy the relevant Indian Standard, the Specification and conditioned herein referred to. Where the Specifications stipulate requirement in addition to those contained in the Standard codes and Specifications, these additional requirements shall also be satisfied.

2. Scope of work

The requirement, calls for a complete working system and not components thereof. Bids must be complete with all equipment and required accessories along with necessary power systems including standard video connectors, patch connectors, patch leads, mounting and fitting hardware, plugs, sockets and any hardware/ software, etc. as required for complete installation of the System under this contract.

The scope of this tender includes, Supply installation and commissioning of IP based CCTV surveillance system, involving fixed camera and VMS compatible to the existing system.

Function requirement:

- 1) Easy and convenient operation
- 2) Stability
- 3) Back-up as evidence
- 4) Cameras shall be manufactured with high reliable components, with long lifespan.
- 5) The contractor shall ensure that the system is supplied, installed and commissioned as per user's satisfaction.
- 6) The contractor has to provide Media as required for all the software.
- 7) The installed system shall have the latest version of the applicable software.
- 8) The contractor shall customize the complete system as per user requirement.
- 9) The contractor shall provide software compatibility support to upgraded hardware if any, for the next 10 years.
- 10) The scope also includes making good defective materials/items and the workmanship during the guarantee/warranty period.

3. Site Conditions

Location

The project area is at Willingdon Island, Cochin-682009.

Rainfall

The climate is characterized by dry and wet seasons. The wet seasons starts in late May and ends in November. During this period, two monsoons pass by one after another. The major monsoon is south-west monsoon which lasts from June to September. This is followed by

north-east monsoon during October and November. The average annual rainfall is about 3000mm; and the major portion is during south-west monsoon.

Temperature

Cochin experiences moderate temperatures throughout the year. The temperature varies from 22°C to 34°C. The low temperature occurs during the southwest monsoon, December and January. Daytime temperature goes upto 30°C and during this period. The hot months are from March to May.

4. Facilities to be provided by the Port

Electric power required for the work can be supplied by the department from the nearest existing line of the Port Authority at prevailing rates. The cost of drawing temporary lines/ cables/ providing switches and making connection and metering arrangements etc, shall be borne by the Contractor. If there is any disruption in the power supply due to supply failure/ restrictions imposed by the Kerala State Electricity Board, the department shall not be held responsible and the Contractor has to make suitable alternative arrangements at their cost.

5. Contractor's responsibility

- 5.1 All materials for use on the works shall be supplied and provided by the contractor at his own cost and shall conform to relevant BIS Specification unless otherwise specified
- 5.2 The Contractor shall supply the CCTV cameras, Rack Mount Recorder, VMS, Server, HDD, High End Work station, Professional Display etc. as per the approved makes mentioned in the Contract and shall be covered under OEM warranty for 5 years.
- 5.3 Samples of all materials including fixtures, if any, to be incorporated in the work shall be got approved by the Engineer-in-Charge before procurement.
- 5.4 The contractor shall thoroughly study the specifications and drawings and errors/ omissions/ modifications if any shall be brought to the notice of the Engineer-in-Charge well in advance so that a final decision in the matter could be given in time.
- 5.5 All labour, skilled or unskilled shall be provided by the contractor. Settling any dispute with the labour will be contractor's responsibility.
- 5.6 The contractor shall be solely responsible for any damage or injury to the persons or things caused or suffered during the execution of the work and these shall be made good or compensated at his risk & cost.
- 5.7 The contractor shall take all care and precautionary measures for avoiding any kind of damage/accident in the work site on any account. The department shall not entertain any claim from the contractor whatsoever towards compensation for any damage/accidents at the site due to negligence from his part, during the execution of work.
- 5.8 The contractor shall prior to commencement of the work insure in the joint names of the Employer and the contractor against all loss or damage from whatever cause arising for which he is responsible under the terms of contract.

- 5.9 The work shall be arranged by the contractor without causing any damage to Port's/ any other structures. Any damage caused by the contractor's operation shall be compensated/made good at contractor's risk and cost to the satisfaction of the Engineer-in-Charge of the works, failing which department will do the rectification work and the cost incurred will be recovered from any sum due to him from the Port.
- 5.10 All plants and equipments and consumables required for the whole work shall be provided by the contractor at his own cost.
- 5.11 The contractor shall not construct any structure, even of temporary nature, for any purpose at site, except with the written permission of the Engineer-in-Charge of the work and any construction so put up shall be removed by the contractor whenever the Engineer-in-Charge calls upon the contractor to do so.
- 5.12 Qualified Engineers with sufficient experience in works of similar nature shall be available at site throughout the contract period during working hours in order to receive instructions from department and to implement them properly and in time.
- 5.13 The contractor shall take all care and precautionary measures for avoiding damage or accidents to the work from ship or other water crafts movements or other operations in the area. The department will not entertain any claim from the contractor whatsoever, towards compensation for any such damage or accident occurring during the execution of the contract.
- 5.14 The contractor shall observe all safety regulations during the execution of the work. Safety measures, precautions, warning signals etc. shall be done at the contractor's cost as directed by the Engineer-in-charge of the work. The contractor shall provide all necessary personnel protection equipments such as helmet, lifeguard, goggles, boots etc. to the workmen at his own risk and cost.
- 5.15 The work shall be arranged by the contractor without causing any hindrance to the ship and other water craft operating in the area. No damage shall be caused to the structures in the area, water crafts operating in the area or otherwise by the contractor's operations. Any damage or accident caused by the contractor's operations shall be compensated / made good at the contractor's risk and cost.
- 5.16 The contractor shall supply at his own cost monthly or at intervals as directed by the Engineer-in-charge, well executed photographs in standard size (approximately 24x18 cm) showing the progress of the work and also such other particular item of the work.
- 5.16 No information or photograph concerning the works shall be published without the prior permission of the Chief Mechanical Engineer and drafts of all such proposal/ publication shall be submitted for approval.
- 5.17 The information and data shown in the drawing and detailed elsewhere in the tender document are furnished for general information and guidance only and the Port Authority in no case will be held responsible for the strict accuracy thereof or any deduction, interpretation or conclusion drawn by the tenderer.
- 5.18 The contractor shall observe the conservancy rules relating to the Port and shall always take necessary steps to keep the Port water free of noxious or unhygienic matter due to the

work, as are required by the Engineer-in-Charge. Under no circumstances, inflammable materials be allowed to spill into Port area.

- 5.19 The Cochin Port is an International Ship & Port Facility Security (ISPS) code compliant Port and the contractor is obliged to comply with the provisions of the code in force and as amended from time to time. The site for the proposed work is a protected area and hence security rules and regulations including obtaining entry/ exit passes including photo passes if any for vehicles, men and materials etc. for entering the area shall be observed by the contractor at his cost.
- 5.20 The contractor shall provide necessary arrangements as desired by the Engineer- in-Charge for inspection of work without any extra cost from commencement till completion of work.
- 5.21 The Contractor shall ensure that no labourers with criminal background are engaged for the work.
- 5.22 All fossils, coins, articles of value or antiques and structures and other remains or things of geological or archaeological interest discovered in the site of work shall be deemed to be the absolute property of the Port Authority and the contractor shall take responsible precautions to prevent his workmen or any other persons from removing or damaging any such article or thing and shall immediately upon discovery thereof and before removal, acquaint the departmental officers of such recovery and carry out at the expense of the department, the Engineer-in-Charge's orders as to the disposal of the same.
- 5.23 The contractor shall remove any plant (floating or otherwise) belonging to him or to any person employed by him which might have sunk in the course of work or otherwise deal with the same as directed by the Engineer-in-Charge and until the same is raised and removed, the contractor shall set on such buoys and display at night such lights for avoiding any mishaps.
- 5.24 Water required for the construction works including curing work shall be arranged by the contractor on his own cost.
- 5.25 The contractor shall take all precautions for not to damage any cables/pipes etc. passing through the area of work.
- 5.26 While carrying out hot works such as welding, cutting, chipping the concrete etc. the following conditions shall be strictly observed by the contractor:
 - (i) Hot work shall be carried out with the approval of the Dy. Conservator's department and the work shall be done as per the instruction of the fire service personnel.
 - (ii) Welding/gas cutting work shall be carried out only with the prior permission of the Marine Dept. and only when vessel carrying inflammable materials is not berthed at the existing berths near to it.
- 5.27 The contractor shall remove all materials brought to work site /stacked at the work site or anywhere else within the Port area and clear the site at his cost to the full satisfaction of the Engineer-in-Charge before the site is returned to the Port Authority. All such materials including debris, tools & plants etc. shall be disposed off to any place as pointed out by the Engineer-in-Charge or be taken away from the location and shall be cleared in every respect and to reinstate to its original condition at no extra cost to the Port Authority

immediately after completion of the work. In case, any such material is found left in the work site or anywhere in the Port area, rent for the storage space occupied by the contractor, either for stacking the materials/debris or for areas used for such purpose but not cleared thereafter, will be recovered as per the prevailing Scale of Rate of Cochin Port Authority, for the rent applicable for open storage space for commercial purpose, for the period for which the area had been occupied by the contractor. In addition to the above, in case the Port requires the area immediately for its use, Port will repossess the land after restoring it to its original condition, material will be confiscated and disposed off at the risk and cost of the contractor, after issuing two notices giving 15 days' time each for removing the material. All expenses incurred on this shall be recovered by disposing off the material if any confiscated. If any balance amount still remains to be realized that will be recovered from the contractor by appropriate means.

- 5.28 The contractor shall extend all the facilitations and cooperation for other contractors for simultaneous execution of other works in the area entrusted by Cochin Port Authority.
- 5.29 The contractor shall comply with all the provisions of the Indian Employees Compensations Act, Provident Fund Regulations, Employees Provident Fund and ESI Act etc. amended from time to time and rules framed there under and other laws affecting the contract labour that maybe brought in to force from time to time."
- 5.30 The contractor shall be registered under EPF and ESI Act and the employees employed under them shall be covered in the EPF and ESI scheme. LoAs shall be issued only to the contractors who are registered under EPF organization and ESI Corporation. The contractors shall regularly remit the employer and employee contribution to the authorities. If not, the Department would remit the same and the amount so remitted shall be deducted from the part/final bill of contractors.
- 5.31 The contractor shall provide, at every work place, at which 20 or more women workers are ordinarily employed, crèches of reasonable size and with adequate facility for the use of their children under at the age of six years at this risk and cost.

6. Workmanship

- 6.1 All the works shall be done strictly according to relevant B.I.S. Specifications unless otherwise specified.
- 6.2 The whole work shall be completed in a diligent manner within the contract period and defect or imperfection if any, observed during the defect liability period/ guarantee period, shall be rectified at contractor's cost to the full satisfaction of the Engineer-in-Charge within the time allowed.
- 6.3 The work shall be arranged in the order of preference as directed by the Engineer-in-Charge of work. In addition to above, contractor shall submit a Quality Assurance Plan (QAP) for the work and it shall be approved by the Engineer-in-Charge before commencing the work and shall be ensured strict compliance of the same. The QAP shall contain the details of tests to be conducted for each material to be used in the work and work.**

7. Temporary works

- 7.1 All scaffolding, staging, bracing and other temporary works required for proper execution of the works, shall be provided by the contractor at his own cost, unless stated otherwise

and that should be inclusive of all materials, labour, supervision and other facilities. The layout and details of such temporary works shall have prior approval of the Engineer-in-Charge, but the contractor shall be responsible for proper strength and safety of the same. All temporary works shall be so constructed as not to interfere with any permanent work or with the work of other agencies. If it is necessary to remove any of the temporary works at any time to facilitate execution of works or work by other agencies, such removal and re-erection, if required, shall be carried out by the Contractor at the direction of Engineer-in-Charge without any delay and any extra cost on this account shall be borne by the contractor.

- 7.2 On completion of the works, temporary works if any provided by the contractor shall be removed from the site and the area shall be reinstated to the original condition at his own risk and cost.

8. Time for Completion

- 8.1 The time allowed for carrying out the work as mentioned in the tender notice shall be strictly observed by the contractor. The work shall throughout the time period be preceded with diligence, time being deemed to be the essence of the contract.
- 8.2 The completion of work may entail working in monsoon period/rainy season without any extra cost. The contractor shall take such an eventuality into consideration while quoting for the work. Normally, no extension of time will be admissible for work in monsoon.

9. Working time

The normal working time of the Port Authority is from 8 a.m. to 4.00 p.m. on all working days with no interval in between. If the Contractor wishes to carry out the work beyond normal working hours and or on holidays, he should get specific approval from the Engineer-in-Charge for the same. Necessary supervision will be arranged by the department and the expenditure to be incurred in this connection will be borne by the department.

10. Method of Execution

The contractor shall clearly indicate in their tender the method proposed by them for executing the various items of works. During the actual execution of the works if modifications or changes in the method of execution of work are found necessary the contractor shall obtain approval from the Engineer-in-charge of work for such modifications or changes in the method. No claim from the contractor for additional payment shall be entertained by the department on the above account.

The detailed list of equipment/machineries/tools & plants proposed to be mobilized for the deployment in the work as furnished as per **Annexure-7** of Section- I and method of execution furnished under clause above, are considered only for the technical appreciation of the proposal of the contractors and it shall not relieve the contractor of his responsibility of executing the work with the quality specified in the tender and any discrepancy occurs, the construction procedures detailed/specified in the tender will prevail. In case, any additional equipment are required to be mobilized than those listed in the tender for deployment in the work, it shall be arranged and the work executed as per the tender specifications without any extra cost to the Department.

11. Alterations and Additions

The Employer shall have power and authority from time to time and at all times to make amendments or additions or alternations or changes in the scope of the work, and specifications, drawings and bill of quantities and give such further instructions and directions as may appear to the Employer necessary and proper for the guidance of the Contractor and the good and efficient execution of the works and the contractor shall receive, obey and be bound by the same according to the true intent and meaning thereof as if the same had been mentioned or referred to in the scope of the work, specifications, Bill of Quantities and Schedules and drawings. The Employer may also vary or alter the lines, levels or positions of any of the works contemplated or may order any of the works contemplated thereby to be omitted, with or without the substitution of any other works in lieu thereof, or may order any work or any portion of works executed or partially executed to be removed, changed or altered, if required, and may order that other work shall be substituted in lieu thereof and any difference in the cost occasioned by any such diminution or alteration so ordered and directed shall be added to or deducted from the Contract Price based on rates available in the contract or where the rates are not specified a suitable rate backed up by rate analysis shall be submitted by the contractor and agreed upon between the contractor and the Employer. In the event of disagreement, the Employer shall fix such rates or prices as shall in their opinion, be reasonable and proper having regard to the circumstances. The contractor shall give to the Employer before the tenth day of every month, a statement in writing of any extra work which he may have performed during the preceding month, failing which any claim for which he may afterwards make for payment on account of any such extra work will not be allowed.

SECTION VI

CONTRACT DATA

[To be filled up before issuing tender document as applicable for each tender]

Items marked "N/A" do not apply in this Contract.

Sl. No.	Description	Reference Clause.No. In GCC
1.	The Schedule of Key personnel	(35)
	Qualification of Personnel	
2	The Employer is	(1)
	THE BOARD OF MAJOR PORT AUTHORITY FOR COCHIN PORT, Cochin -9	
	Name of Authorized Representative:	
	Name: The Chairman, Cochin Port Authority, Cochin -9	
3	The Engineer is	
	Name: Shri.V.Thuraipandian,	
	Chief Mechanical Engineer Cochin Port Authority, Cochin-9	
	Name of Nominee is : Humble Ursala John, Exe.Engineer (Electrical)	

Sl. No.	Description	Reference Clause No. in GCC
4	Name of Contract :-“ Supply, installation, testing and commissioning of 36 nos. of IP CCTV security cameras at various locations of CoPA, including 2 years guarantee and 5 years comprehensive AMC thereafter ”	(1)
5	4 copies of Contract Agreement shall be furnished by the Contractor	[26]
6	Tender document and other data are available at Cochin Port web site, CPPP and GeM portal	
7	The Intended completion Date for the whole of the Work is 120 days from date of issue of LoA with the following milestones:	(36)
8	Mile stone dates:	
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Physical works to be completed</td> <td style="width: 50%; text-align: center;">120 days from the date of Issue of LoA</td> </tr> </table>	
Physical works to be completed	120 days from the date of Issue of LoA	
9	The following shall form part of the Contract Document:. (1) Agreement (2) Letter of Acceptance. (3) All the Correspondence exchanged between the Employer and the Contractor / Bidder after opening of this Tender and before the issue of Letter of Acceptance. (4) Contractor’s Bid (5) Contract Data (6) Conditions of Contract like, ITT, GCC, Scope of work, Technical Specifications, General Instructions etc. (7) Bill of quantities	
10	The start date shall be 7 days from the date of issue of the Letter of Acceptance(LoA).	(1)
11	The site is located at W/Island, Cochin 682009.	
12	The Defect Liability Period/ guarantee period is twenty four (24) months from the date of commissioning of the work.	(20,34)

SECTION VII

BILL OF QUANTITIES

BILL OF QUANTITIES FOR PROVIDING CCTV AT VARIOUS LOCATIONS OF CoPA

No.	Description of Item	Quantity	RATE(Rs.)	AMOUNT(Rs.)
	SCHEDULE B1			
	SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF CCTV CAMERAS AND ACCESSORIES			
1	PTZ Camera	2	No.	
2	Zoom type box Camera	5	No.	
3	Out Door Box Motorized VF IR Camera	24	No.	
4	ANPR Camera	4	No.	
5	Fish eye Camera	1	No.	
6	GI pole 3 inch dia. 5 metre long with Foundation	18	No.	
7	GI pole 3 inch dia. 10 metre long with Foundation	1	No.	
8	Outdoor wall mount Rack/ IP 65 BOX with fan Network Accessories with Required Glands	12	No.	
9	6 U indoor Rack With Tray , PDU and Cable Manager and Required Accessories	7	No.	
10	POE Switch 8 port poe+ With 2 sf port With power budget of 55W	6	No.	
11	POE Switch 4 port poe+ With 1 sf port With power budget of 55W	17	No.	
12	SFP Module With Patch cord	78	No.	
13	Polycarbonate junction box	3	No.	
14	Network Surge Protector	60	No.	
15	Lighting Arrestor	20	No.	
16	Earthing Strip with Required Links and Earthing Compound	20	No.	
17	MCB and Other Accessories	24	No.	
18	6 Core SM Fiber Cable Armoured	6500	Mtrs.	
19	HDPE pipe 25/32 mm	6125	Mtrs.	

Providing CCTV Surveillance Arrangements at Various Locations of CoPA

20	CAT 6 Cable Outdoor	990	Mtrs.		
21	800 VA UPS With Inbuilt Battery	19	No.		
22	PVC Conduit 25 mm ISI Medium	300	Mtrs.		
23	Power Cable 3 core 1.5 sqmm	330	Mtrs.		
24	2000 VA UPS With Inbuilt Battery	1	No.		
25	Pole Stucture with Foundation which could stand the conditions of the installation area(COT)	2	No.		
26	P2P link for the the wireless communication	2	Nos.		
27	Structure and earthing for the wireless communication	2	Nos.		
28	Pendant for Fish Eye Camera	1	No.		
29	Reposition of existing cameras -CFS	10	Nos.		
30	Rack Mount Recorder consisting of following :				
30.a	Video Management Server as per technical specification	1	LS		
30.b	Central Video/ database Management Server as per technical specification	1	No.		
30.c	Camera Recording Server/NVRas per technical specification	2	Nos.		
31	18 TB HDD	18	No.		
32	High EndWork station	1	No		
33	24 port POE + 4 SFP switch	1	No.		
34	24 port GB switch with 4 port SFP Enterprise	1	No.		
35	24 port SFP Switch Enterprise	1	No.		
36	43 inch Display Professional 24X7 Operational	2	Nos.		
37	32 u rack With all accessories	1	No.		
38	PTZ Joy Stick Controller	1	No.		
	TOTAL SUPPLY CHARGES				

X	TOTAL ERECTION CHARGES FOR ENTIRE LOCATION				
1	Splicing Charges	200	Nos		
2	Soft Soil Digging & resurfacing	500	Mtrs.		
3	Tar Cutting & resurfacing	500	Mtrs.		
4	Conduit laying & pulling all over the wall	1000	Mtrs.		
5	Installation, Testing, Commissioning & Training charges	1	LS		
	TOTAL ERECTION CHARGES FOR ENTIRE LOCATION				
	TOTAL COST FOR SITC OF CCTV CAMERAS (SUPPLY+ERECTION)			Rs.	

SCHEDULE B2 – RATES FOR COMPREHENSIVE AMC					
	RATES FOR THE COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT OF THE 36 NOS. OF IP CCTV SECURITY CAMERAS & ACCESSORIES FOR FIVE YEARS AFTER 2-YEAR GUARANTEE PERIOD	3 rd year (x0.8163)			
		4 th year (x0.7629)			
		5 th year (x0.7130)			
		6 th year (x0.6663)			
		7 th year (x0.6627)			
	TOTAL COST FOR 5 YEARS CAMC AFTER 2 YEARS GUARANTEE PERIOD			Rs.	
GRAND TOTAL – SCHEDULE B1+SCHEDULE B2					
	GRAND TOTAL – SCHEDULE B1+SCHEDULE B2			Rs.	

*Evaluation of AMC for 5 years will be carried out at the Discounted Factor of 7%.

Annexure-1

LETTER OF SUBMISSION-COVERING LETTER
(ON THE LETTER HEAD OF THE BIDDER)

Date:

To

The Chief Mechanical Engineer,
Cochin Port Authority.

Sir,

Sub :Tender for” **Supply installation, testing and commissioning of 36 nos. of IP CCTV security cameras at various locations of CoPA, including 2 years guarantee and 5 years comprehensive AMC thereafter”**

Being duly authorized to represent and act on behalf of.....

(Hereinafter referred to as “the Bidder”) and having reviewed and fully understood all of the requirements of the bid document and information provided, the undersigned hereby apply for the project referred above.

We are submitting our Bid enclosing the following, with the details as per the requirements of the Bid Document, for your evaluation.

1. EMD/ MSME Udyam registration certificate along with QR code
2. Power of Attorney in favour of signatory/s to the Tender, duly authenticated by Notary
3. Organization Details
4. Proof of experience in support of MQC
5. Proof that the tenderer is an Original Equipment Manufacturer (OEM) or authorized dealer
6. Financial documents in support of MQC1
7. Copies of PAN, GST Registration and Bank Information for e-payment.
8. Declarations

Signature

(Authorized Signatory)

Annexure- 2

PROFORMA OF POWER-OF-ATTORNEY/LETTER OF AUTHORITY

(To be submitted on Non-judicial Stamp Paper of appropriate value)

To

The Chief Mechanical Engineer,
Cochin Port Authority,
Cochin-682009,
Kerala, India.

Dear Sir,

We _____ do hereby confirm that Mr./Ms./Messrs _____ **[INSERT NAME AND ADDRESS]**, whose signature is given below, is/are authorized to represent us to bid, negotiate and conclude the on our behalf with you against Tender for **“Supply installation, testing and commissioning of 36 nos. of IP CCTV security cameras at various locations of CoPA, including 2 years guarantee and 5 years comprehensive AMC thereafter”**.

We confirm that we shall be bound by all and whatsoever our said agents shall commit.

Signature of the authorized person :

Name & Designation:

Yours faithfully,

Signature, name and seal of the certifying authority

Annexure-3

ORGANIZATIONDETAILS

CONTRACT No.:

NAME OF APPLICANT:

1. Name of the Owner:
2. Address:
Telephone No./Fax No.

e-mail address
3. Description of Applicant
(for e.g. AorB grade electrical contractor etc.)
4. Registration and Classification
of Contractors
5. Name and address of bankers
6. Number of years of
experience as a contractor:-

In own Country:

Internationally:
7. Name and Address of partners or
associated companies to be involved
in the project and whether Parent/
Subsidiary/other
8. Name and address of any associates
knowledgeable in the procedures of
customs, immigration and local
experience in various aspect of the project
etc.

9. Name and address of the companies/
Sub-contractors who will be involved
in the execution of works, namely:

10. Name and address of companies who
will be involved in the supply of
bought out items

12. Attach organization chart showing the structure
of the company including names of Directors/
Key Personnel at Head Office who would be
responsible for the project and a separate chart
showing proposed Site Construction
Organisation.

Signature
(Authorised
Signatory)

Tenderer shall furnish Details of “eligibility works experience” as per Clause 12 of Minimum Eligible Criteria (MEC) of Instruction to Tenderer and certificates in the following format (Client Certificates/work completion certificates or any other documentary evidences with respect to the eligibility work)

ELIGIBLE ASSIGNMENT DETAILS FOR MQC

Assignment Number:

Descriptio n	Bidder to fillup the details here
Name and Address of the Client	
Title of the Eligible Assignment	
Date of completion of the Eligible Assignment	
Project Completion Cost	
Reference No. of the enclosed Client Completion Certificate/Documentary Evidence for having successfully completed the Eligible assignment	
Name, telephone no., telefax no and email address of the client’s representative	
Description and Scope of Work	

Instructions:

- i) Bidders are expected to provide information in respect of Eligible Assignments in this Section. The assignments cited must comply with the criteria specified Clause No. 12(a) Minimum eligibility of the Instructions to Tenderers”.
- ii) A separate sheet should be filled for each of the eligible assignments.
- iii) The details are to be supplemented by documentary proof from the respective client /owner for having carried out such assignment Duly certified by clients/ owner.
- iv) The works indicated in this Annexure- 4a&4b will be only being considered for evaluation. Mere submission of work completion certificate will not be considered as Eligible Assignments
- v) Original or notary certified copy of completion certificates of each work issued by the owner/ the responsible officers of the owner under whom he has executed such contracts shall be attached. The certificate shall invariably contain the following among other things.

- a) Details of work involved specifying the nature of work
 - b) The completion cost of the work and
 - c) Date of commencement; and
 - d) Date of completion of the work.
- vi) If the experience in similar works is as a member of joint venture, notary attested copy of joint venture agreement in this respect shall be attached.
- vii) If the experience in similar works is as a subcontractor, notary attested copy(s) of approval issued by the Employer(s) authorizing as a sub-contractor; in proof of the claim of the tenderer as a sub-contractor shall be attached.
- viii) If the experience in similar work is in works executed in private sectors/ organizations, the TDS certificate along with notary attested copy(s) work order and completion certificate.
- ix) The tenderer is also obliged to produce the original of the certified copy(s) on request by the department.

Signature (Authorised
Signatory)

Annexure- 4b

DETAILS OF PAST EXPERIENCE OF CONTRACTORS FOR SIMILAR WORKS

Sl. No.	Name & Location of Project	Owner's Complete address including Tele Fax No. with contact Person	Value of Contract	Duration of Contract			Details of work including major items of work involved	Reference No. & Date of letter of intent & completion certificate enclosed
				Commencement date	Scheduled completion date	Actual completion date		
1	2	3	4	5	6	7	8	9

Note: Bidder to enclose completion certificate issued by owner, certified by a Notary public or equivalent certifying authority.

SIGNATURE OF TENDERER

Annexure- 5

FINANCIAL CAPABILITY

(A) Average Annual Turnover of the Bidder

Turnover(Rs.)			
Year1	Year2	Year3	Average
2020-21	2021-22	2022-23	

Instructions:

The Bidder shall submit either of the following along with the bid.

(I) A statement duly certified by the Chartered Accountant showing the Average Annual Financial Turnover during the last three financial years

OR

(II) Annual Accounts duly certified by a Chartered Accountant.

Signature

Certified by Chartered Accountant
(with UDIN (Unique Document Identification Number)
while certification with QR code if available.)

(Authorised Signatory)

Annexure - 6

DETAILS OF PROPOSED APPROACH & METHODOLOGY

Bidder shall furnish a detailed method statement (Technical Note) for carrying out of the works, along with a programme showing sequence of operation and the time frame for various segments of works.

Signature
(Authorised Signatory)

~~PLANT AND EQUIPMENT PROPOSED FOR THE WORK~~

Not Applicable

Signature
(Authorised Signatory)

Annexure-8

DECLARATION

We M/s(*Name & address of the bidder*) hereby declare that:-

1. ~~All details regarding construction plant, temporary work and personnel for site organisation considered necessary and sufficient for the work have been furnished in the Annexure 7 and that such plant, temporary works and personnel for site organisation will be available at the site till the completion of the respective work.~~
2. ~~No conditions are incorporated in the financial bid. In case any conditions are specified in the financial bid, the tender will be rejected summarily without making any further reference to the bidder.~~
3. We have not made any payment or illegal gratification to any persons/ authority connected with the bid process so as to influence the bid process and have not committed any offence under PC Act in connection with the bid.
4. We disclose with that we have *made / not made payments or propose to be made to any intermediaries (agents) etc in connection with the bid.
5. We do hereby confirm that no changes have been made in the tender document downloaded and submitted by us for the above bid. Port Tender document will be treated as authentic tender and if any discrepancy is noticed at any stage between the Port's tender document and the one submitted by the tenderer, the Port's document shall prevail.

Signature
(Authorized Signatory)

****Note: Delete whichever is not applicable.***

Annexure-9

DETAILS OF THE PARTY OPTING FOR REFUND OF EMD THROUGH E-PAYMENT SYSTEM

Name of the Party :

Bank A/cNo :

Account type :(Savings/Current/Overdraft)

Bank Name :

Branch :

IFSC CodeNumber :(11digitcode)

Centre(Location) :

FAX No. :

E-Mail ID :(For forwarding information of remittance)

Mobile No :

Signature
(Authorised Signatory)

Annexure-10

FORMAT FOR FURNISHING BANK INFORMATION FOR e-PAYMENT

1	Name and full address of the beneficiary	
2	Credit Account No. (Should be full 14 digit)	
3	Account Type (SB or CA or OD)	
	Name of the Bank	
5	Branch (Full address with telephone No.)	
6	MICR code (Should be 9 digit)	
7	Telephone/Mobile/Fax No. of the beneficiary	Telephone:
		Mobile :
		Fax :
8	Cancelled Cheque	

Signature with seal

(Authorised Signatory)

~~PROFORMA OF PRE-CONTRACT INTEGRITY PACT~~

DELETED

Annexure-12

PROFORMA OF IRREVOCABLE BANK GUARANTEE FOR EARNEST MONEY DEPOSIT

(To be submitted on Non-judicial Stamp Paper of appropriate value)

No. _____ Dated _____.

This Deed of Guarantee executed at _____ by _____ (Name of Bank) having its Head/Registered office at _____ (hereinafter referred to as “the Guarantor”) which expression shall unless it be repugnant to the subject or context thereof include its executors, administrators, successors and assigns;

In favour of

The Cochin Port Authority (hereinafter called “the EMPLOYER”), having its office at Willingdon Island, Cochin – 682 009, which expression shall unless it be repugnant to the subject or context thereof include its executors, administrators, successors and assigns;

Whereas M/s. _____, a Company registered under the provisions of _____ having its registered office at _____ (hereinafter called “the Bidder”) which expression shall unless it be repugnant to the subject or context thereof include its executors, administrators, successors and assigns, has bid for the work (hereinafter referred to as “the Work”).

Whereas in terms of the Tender Notice dated _____ (hereinafter referred to as “Tender Document”) the Bidder is required to furnish to the Port Authority an unconditional and irrevocable Bank Guarantee for an amount of Rs (Rupees

..... only) as Earnest Money Deposit (EMD) and the Guarantor has at the request of the Bidder agreed to provide such Guarantee being these presents:

Now this deed witnesseth that in consideration of the premises, We, _____

_____ Bank hereby declare, undertake and agree as follows:

We as primary obligor shall, without demur, pay to the Port Authority an amount not exceeding Rs. (Rupees only), within 5 days of receipt of a written demand from the Port Authority stating that the EMD has been forfeited in terms of Clause 15.2 of the Instruction of Bidders of Tender Document. Any such demand made on us by the Port Authority shall be conclusive and absolute as regards the forfeiture of the EMD and the amount due and payable under this Guarantee.

- a) The above payment shall be made by us without any reference to the Bidder or any other person and irrespective of whether the claim of the Port Authority is disputed by the Bidder or not.
- b) This Guarantee shall remain in full force for a period of 148 days from (date)* __ or for such extended period as may be mutually agreed between the Port Authority and the Bidder and shall continue to be enforceable till all amounts which are demanded by the Port Authority under this Guarantee are paid.
- c) In order to give full effect to this Guarantee, the EMPLOYER shall be entitled to treat the Guarantor as the principal debtor and the obligations of the Guarantor shall not be affected by any variations in the terms and conditions of the Tender Document or other documents or by extension of time of performance of any obligations by the Bidder or any postponement for any time of the powers exercisable by the EMPLOYER against the Bidder or forbear or enforce any of the terms and conditions relating to non-compliance of the Tender Document by the Bidder and we shall not be relieved from our obligations by reason of any variation or extension being granted to the Bidder or forbearance or omission on the part of the EMPLOYER or any indulgence by the EMPLOYER to the Bidder to give such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.
- d) This Guarantee shall be irrevocable and shall remain in full force and effect until all our obligations under this Guarantee are duly discharged.
- e) The Guarantor has power to issue this Guarantee and the undersigned is duly authorised to execute this Guarantee pursuant to the power granted under——
In Witness where of the Guarantor has set its hands here unto on the day, month and year first hereinabove written.

Signed and Delivered by _____ Bank by the hand of Shri _____ its _____
_____ and authorized official

*Fill in the scheduled date of submission of bid.

Annexure-13

~~PROFORMA OF JOINT VENTURE/ CONSORTIUM AGREEMENT
(To be submitted on Non-judicial Stamp Paper of appropriate value)~~

DELETED

Annexure-14

~~PROFORMA OF POWER OF ATTORNEY FOR LEAD MEMBER OF
JV/ CONSORTIUM (NA)~~

DELETED

Annexure A

PROFORMA OF BANK GUARANTEE FOR PERFORMANCE GUARANTEE/ SECURITY DEPOSIT

(To be executed on non-judicial Stamp Paper of Rs.200/-)

[The bank, as requested by the successful Tenderer, shall fill in this form in accordance with the instructions indicated]

In consideration of the THE BOARD OF MAJOR PORT AUTHORITY FOR COCHIN PORT commonly known as COCHIN PORT AUTHORITY, a Body Corporate under the Major Port Authorities Act, 2021, with its Administrative Office at Willingdon Island, Cochin-682009, having PAN Card No. AAALC1134F (hereinafter called “The Board” which expression shall unless excluded by or repugnant to the context or meaning thereof be deemed to include the Board of Cochin Port Authority, its successors and assigns) having agreed to exempt ----- (Name of the Contractor/s) (hereinafter called the “Contractor”)’ from the demand under the terms and conditions of the Contract, vide _____ ‘s letter No. _____ (Name of the Department)date _____ made between the Contractors and the Board for execution of _____ covered under Tender No. _____ dated _____ (hereinafter called “the said contract”) for the payment of Security Deposit in cash or Lodgement of Government Promissory Loan Notes for the due fulfillment by the said Contractors of the terms and conditions of the said Contract, on production of a Bank Guarantee for Rs. _____ (Rupees _____) only we, the (Name of the Bank and Address) _____ (hereinafter referred to as “the Bank”) at the request of the Contractors do hereby undertake to pay to the Board an amount not exceeding Rs. _____ (Rupees _____) only against any loss or damage caused to or suffered by or which would be caused to or suffered by the Board by reason of any breach by the Contractors of any of the terms and conditions of the said contract.

2. We, (Name of Bank), (Name of Branch), do hereby undertake to pay the amounts due and payable under this guarantee without any demur merely on a demand from the Board stating that the amount claimed is due by way of loss or damage caused to or which would be caused to or suffered by the Board by reason of any breach by the Contractors of any of the terms and conditions of the said contract or by reason of the Contractors failure to perform the said contract. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to any amount not exceeding Rs. _____ (Rupees _____) only.

3. We, _____(Name of Bank and Branch)_____, undertake to pay to the Board any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) in any suit or proceeding pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor(s) shall have no claim against us for making such payment.

4. We, _____(Name of Bank and Branch) further agree with the Board that the guarantee herein contained shall remain in full force and effect during the period that would be taken for performance of the said contract and that it shall continue to be enforceable till all the dues of the Board under or by virtue of the said contract have been fully paid and its

claims satisfied or discharged or till the (Name of the user department) of the said certifies that the terms and conditions of the said contract have been fully and properly carried out by the said Contractors and accordingly discharge this guarantee. PROVIDED HOWEVER that the Bank shall be the request of the Board but at the cost of the Contractors, renew or extend this guarantee for such further period or periods as the Board may require from time to time.

5. We, (Name of Bank and Branch) further agree with the Board that the Board shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said contract or to extend the time of performance by the said contract or to extend the time of performance by the said Contractors from time to time or to postpone for any time or from time to time any of the powers exercisable by the Board against the said Contractors and to forbear or enforce any of the terms and conditions relating to the said contract and we shall not be relieved from our liability by reason of any such variation or extensions being granted to be Contractors or for any forbearance, act or omission on the part of the Board or any indulgence shown by the Board to the Contractors or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

7. It is also hereby agreed that the Courts in [insert city] would have exclusive jurisdiction in respect of claims, if any, under this Guarantee.

8. We, _____ Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Board in writing.

9. Notwithstanding anything contained herein:

a) Our liability under this Bank Guarantee shall not exceed Rs. _____ (Rupees _____ only);

b) this Bank Guarantee shall be valid upto ____* _____; and

c) we are liable to pay the guarantee amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before _____ (date of expiry of Guarantee).”

Date _____ day of _____ 2024

For (Name of Bank)

(Name)

Signature

FORM OF AGREEMENT
TO BE EXECUTED ON KERALA STAMP PAPER (Rs.200/-)

AGREEMENT No. OF.....

Sub: **“Supply, installation, testing and commissioning of 36 nos. of IP CCTV security cameras at various locations of CoPA, including 2 years guarantee and 5 years comprehensive AMC thereafter”**

THIS agreement is made at Cochin on day of ----- Two thousand and Twenty four (..... --2024) *between* THE BOARD OF MAJOR PORT AUTHORITY FOR COCHIN PORT commonly known as COCHIN PORT AUTHORITY, a Body Corporate under the Major Port Authorities Act, 2021, with its Administrative Office at Willingdon Island, Cochin-682009, having PAN Card No. AAALC1134F, represented by its Chief Mechanical Engineer, Sri. (hereinafter referred to as “The Employer” which expression shall include their successors, assignees and administrators in the office) of the one part AND M/s. represented by Sri/Smt.. ----- aged -----years, son/daughter of Sri. ----- residing at ----- (House name and No.) ----- District ----- State ----- (hereinafter referred to as “The Contractor” which expression shall include their successors, assignees and administrators) of the other part.

Whereas the “Employer” had called for the tenders for the Tender for the “Supply, installation, testing and commissioning of 36 nos. of IP CCTV security cameras at various locations of CoPA, including 2 years guarantee and 5 years comprehensive AMC thereafter” and the supplier had submitted a tender for the same giving the rates subject to the terms and conditions etc.

And whereas the said tender of the supplier has been accepted by the employer and Letter of Acceptance (LoA) No..... dated..... has been issued to the supplier accepting their tender for the work of **“Supply, installation, testing and commissioning of 36 nos. of IP CCTV security cameras at various locations of CoPA, including 2 years guarantee”** subject to Instructions to Tenderer, General Conditions of Contract, Scope of Supply & Technical Specification and such other Contract Documents. And as per one of the terms of the above LoA, an agreement has to be executed between the supplier and the employer.

NOW THESE PRESENTS WITNESES AS FOLLOWS:

The supplier hereby agrees for the **“Supply, installation, testing and commissioning of 36 nos. of IP CCTV security cameras at various locations of CoPA, including 2 years guarantee”** as described in the schedule, its annexure etc. at the rates shown there under subject to INSTRUCTIONS TO TENDERER, GENERAL CONDITIONS OF CONTRACT, Scope of supply & Technical Specification and such other conditions, all here unto annexed within 120 (One twenty) days from the date of receipt of LoA or in default to forfeit and pay to the employer the sum of money mentioned in the said conditions.

The supplier has furnished a Bank Guarantee for Rs.....(Rupees ----- only)vide Bank Guarantee No..... dated..... from.....Bank in lieu of Security Deposit for the due and proper fulfillment of the contract encashable in Cochin. The supplier further agrees that the aforesaid Bank Guarantee will be kept valid until two months beyond the expiry of the Guarantee period. The supplier also agrees that the Bank Guarantee furnished in lieu of Security Deposit for the due and proper fulfillment of the contract will be suitably enhanced so as to cover 10% of cost of any additional items/works that may be required for the proper completion of the contract or otherwise the employer can deduct such additional amounts towards Security Deposit from the supplier's bills.

The following documents shall be deemed to form and be read and construed as part of this agreement viz:

(list of relevant documents- will be furnished by Port)

The Conditions given in the LoA dated..... shall over-ride the general conditions given in the tender document, wherever they differ. Any of the counter terms and conditions of the supplier shall not be taken as terms and conditions of this contract/ agreement unless the Trustees in writing specifically agree to it.

IN WITNESS WHEREOF THE SUPPLIER hereunto set his hand and seal And on behalf of the Board of Major Port Authority for the Port of Cochin, the Chief Mechanical Engineer has set his hand and seal and common seal of Trustees as has been hereunto affixed the day and year first written above.

Signed, sealed and delivered by Shri.....of M/s

SUPPLIER

(COMMON SEAL OF THE FIRM)

Signed and affixed seal in the presence of:

1. Signature with address:
2. Signature with address:

Signed, sealed and delivered by the Chief Mechanical Engineer,
Cochin Port Authority
On behalf of EMPLOYER
Board of Major Port Authority for the Port of Cochin.

Signed and affixed the common Seal of Board of
Major Port Authority for the Port of Cochin in the presence of

- 1)
- 2)

No Claim Certificate

(On Company Letterhead)

To,

(Contract Executing Officer)
Cochin Port Authority

Sub: **Contract Agreement No ----- dated -----for**

We have received the sum of Rs. (Rupees ----- only) in full and final settlement of all the payments due from Cochin Port Authority for under the above mentioned contract agreement, between us and Cochin Port Authority. We hereby unconditionally, and without any reservation whatsoever, certify that with this payment, we shall have no claim, whatsoever of any description, on any account, against Cochin Port Authority, against aforesaid Contract Agreement executed by us.

Yours faithfully,

Signatures of Contractor or
Officer authorized to sign the Contract Documents
On behalf of the Contractor
(Company Stamp)

Date:

Place: