

**SPECIAL BRANCH
POLICE HEADQUARTER, M.P., BHOPAL**

NO. SB / Store/2025-25 (628) Bhopal, Dated 17 -12-2025

"ONLINE E-TENDER NOTICE "

E-tender are invited by Assistant Inspector General of Police, Special Branch (G) M.P., Bhopal on behalf of DGP MP Bhopal for the following item on website <https://mptenders.gov.in/nicgep/app>:-


| S.No. | Name of Item(s) | Qty. | Tender Fees (Rs.) | EMD (Rs.) | Tender No. |
|-------|---|------|---|------------|------------------------|
| | | | Paid Online Through mptenders.gov.in | | |
| 1 | CCTV Surveillance System for Raj Bhawan | 01 | 10,000/- | 9,00,000/- | 1 st Tender |

1. Cost of tender document (Tender Fee) is non refundable and cannot be exempted in any condition & **must submit online through website <https://mptenders.gov.in/nicgep/app>**.
2. Tender document can be download from the website of MP Police (www.mppolice.gov.in)
3. Bids shall be submitted online only at MP Tenders website: <https://mptenders.gov.in/nicgep/app>

4. Tender Schedule :

| No. | Tender Activity | Date & Time |
|------|--|--|
| i | E-Tender Publish Date | 17/12/2025 at 1700 hrs. |
| ii | Tender document download Start Date | 17/12/2025 up to 1730 hrs. |
| iii | Submission of written queries - through e-mail: aigg-sb@mppolice.gov.in | 23/12/2025 up to 1700 hrs. |
| iv | Pre Bid Meeting along with written queries | 24/12/2025 at 1200 hrs. |
| v | Bid Submission Start Date | 25/12/2025 at 1000 hrs. |
| vi | Last date of online e-Tender submission | 15/01/2026 up to 1600 hrs. |
| vii | Bid will be opened on | 16/01/2026 up to 1600 hrs. |
| viii | Demonstration from | Demo date will be announced separately |

5. Intending Bidders are advised to visit this website regularly till closing date of submission to keep themselves updated as any change/ modification in the tender will be intimated through this web site only by corrigendum /addendum/ amendment.
6. Bids will be opened as per date/time as mentioned in the Tender Critical Date Sheet. After online opening of Technical-Bid the results of their qualification as well Price-Bid opening will be intimated later.


D.I.G. of Police
Intelligence (G) M.P. Bhopal
Tel. No. 0755- 2443654

विशेष शाखा, पुलिस मुख्यालय
मध्यप्रदेश भोपाल

NO. SB / Store/2025-25 (628), Bhopal,

Dated 17-12-2025

“ऑनलाईन ई-निविदा सूचना”


पुलिस महानिदेशक, मध्यप्रदेश की ओर से सहायक पुलिस महानिरीक्षक, विशेष शाखा (जी) पुलिस मुख्यालय, भोपाल द्वारा वेबसाइट <https://mptenders.gov.in/nicgep/app> पर निम्नलिखित उपकरणों के क्रय हेतु ऑनलाईन निविदा आमंत्रित की जाती है:-

| S.No. | Name of Item(s) | Qty. | Tender Fees (Rs.) | EMD (Rs.) | Tender No. |
|-------|---|------|---|------------|------------------------|
| | | | Paid Online Through mptenders.gov.in | | |
| 1 | CCTV Surveillance System for Raj Bhawan | 01 | 10,000/- | 9,00,000/- | 1 st Tender |

1. निविदा प्रपत्र ऑनलाईन वेबसाइट <https://mptenders.gov.in/nicgep/app> पर जमा किये जाएंगे।
2. निविदा शुल्क ऑनलाईन जमा करना अनिवार्य है।
3. मध्यप्रदेश पुलिस की वेबसाइट www.mppolice.gov.in से निविदा प्रपत्र एवं विस्तृत जानकारी डाउनलोड की जा सकती है।
4. निविदा समय सारणी:

| No. | Tender Activity | Date & Time |
|------|--|--|
| i | निविदा प्रकाशन की दिनांक | 17/12/2025 at 1700 hrs. |
| ii | निविदा प्रपत्र डाउनलोड करने की प्रारंभ दिनांक | 17/12/2025 up to 1730 hrs. |
| iii | Submission of written queries - through e-mail: aigg-sb@mppolice.gov.in | 23/12/2025 up to 1700 hrs. |
| iv | प्री-बिड दिनांक | 24/12/2025 at 1200 hrs. |
| v | निविदा जमा करने की प्रारंभ दिनांक | 25/12/2025 at 1000 hrs. |
| vi | निविदा जमा करने की अंतिम दिनांक | 15/01/2026 up to 1600 hrs. |
| vii | निविदा खोलने की दिनांक | 16/01/2026 up to 1600 hrs. |
| viii | डिमांस्ट्रेशन दिनांक | Demo date will be announced separately |

5. निविदाकर्तागण से अनुरोध है कि निविदा से संबंधित संशोधन, शुद्धि पत्र आदि वेबसाइट पर ही अपलोड किये जायेंगे अतः वेबसाइट पर अद्यतन रहें।
6. निविदा में दर्शाए दिनांक/समय पर निविदा खोली जावेगी, निविदा खोलने के उपरान्त तकनीकी निविदा में योग्य पाए गए निविदाकर्ताओं एवं वित्तीय निविदा की जानकारी वेबसाइट के माध्यम से बाद में सूचित की जावेगी।


उप पुलिस महानिरीक्षक,
गुप्तकर्ता (जी) म.प्र.भोपाल
दूरभाष कं.-0755-2443654

GENERAL TERMS AND CONDITIONS OF TENDER

- 1.1. The tenderer should sign the tender form copy, of the general terms and conditions at each page and at the end in token of the acceptance of all the terms and conditions of the tender. Non availability of above tender will be treated as invalid.
- 1.2. Tender form shall be obtained on website mptender.gov.in and mppolice.gov.in and used for each tender by depositing a tender fee paid by online payment through mptender.gov.in
- 1.3. The Mandatory bid should contain Detail of Tender Fee, Earnest Money, Current Clearance GST certificates, letter of authorization from Original Equipment Manufacturer (OEM), financial status of the vendor. Technical bid should contain duly filled tender documents, technical specifications of item, pamphlet/catalogue, signed copies of general terms & conditions of the tender. Financial bid should contain price of above said Item/ Equipment etc along with relevant details pertaining to the financial aspect of the bid.
- 1.4. The Bidder should clearly mention the make and model of each quoted items.
- 1.5. The rate/unit, under any circumstances shall not be altered and shall be entered in words as well as in figures. If there is any overwriting or cancellation on the tender, it shall be supported by a full signature and seal of the tenderer.
- 1.6. The Bidder should quote the price of individual items included in all Tenders. The lowest price of each item will be decided separately.
- 1.7. The tender will remain valid for one year from for the date of tender. Conditional tender will not be entertained.
- 1.8. All rates quoted in the tender must be based on free delivery in good condition, securely packed and F.O.R. destination being Stores, Special Branch, M.P. Bhopal or various units in the state. The rates should be inclusive of all taxes. In case of local suppliers, no cartage shall be paid by the Government and the delivery of goods shall have to be given at the premises of the Stores, Special Branch, M.P. Bhopal /District Units during working hours. The supplier shall be required to bear all risks of loss, leakage or damage and shall deliver the goods in good condition to the consignee at the destination mentioned in the order.
- 1.9. Tenderer should be submitted by those firms/dealers who are either Original Equipment manufacturers or suppliers/contractors for those articles/goods/items etc. who are authorized by the Original Equipment Manufacturers. Tenderer should attach authorization letter of dealership mentioning name of in original from the OEM.
- 1.10. In case of imported equipment, DGFT License should be obtained by firm within a time period of maximum 90 days from the date of purchase order. If the firm fails to obtain DGFT License within stipulated period, department will be free to cancel the purchase order.
- 1.11. In case of imported equipment, their cost and custom duty should be mentioned separately. In case of custom duty exemption from Govt. of

India, the certificate can be provided for the same by department. Tenderers must ensure that items are custom duty exempted or not as per serial no. 20(a) of specific clause of Notification No. 39/96-Cus dated 23-07-96 (under which CDEC is being sought)

- 1.12. Rates of Goods/Items must be mentioned in Indian Currency only. Department shall not be responsible for any variation in the rates of foreign currency vis-a- vis Indian currency. No correspondence in this regard will be entertained.
- 1.13. Technical bid should include information related to all the specification sought. It should also contain company brochures of all equipments/ Items applied for, and should have the relevant technical documents issued by the manufacturer in support of specification asked for.
- 1.14. Tenderer shall submit the deviation chart in relation to the specification of all Equipments/Items asked for.
Tenderer must submit the details of compliance of specifications of proposed item along with the name and make of models quoted in tender for supplies. For this purpose, a compliance sheet indicating page numbers of specification of proposed item with categorical 'Yes' or 'No' be mentioned.
- 1.15. No certificate will be provided to import any equipments/items for demonstration purposes.
- 1.16. **Demonstration Programme:** Demonstration of the items will be held in **S.B. PHQ Bhopal** on as prescribed dates in tender time line.
- 1.17. The tenderer shall be deemed to have carefully examined the condition / specifications etc. of the goods to be supplied. If tenderer has any doubt regarding the meaning of any portion of these conditions, tenderer shall before submitting his tender / quotation, refer to the AIG (G), SB PHQ, Bhopal Madhya Pradesh at email i.d :- aigg-sb@mppolice.gov.in and get clarification
- 1.18. Only the Technical Bid will be opened on the date indicated for Tender opening. Price bids of only those firms will be considered for opening whose offers are complete in all respect and fulfill the requirements as per specification. However, purchaser reserves the right to cancel, reject the tender without assigning any reminder.

2 Eligibility Criteria:-

- 2.1 The prime bidder should be a firm registered in India having its office anywhere within the territory of India. Prime bidder must be an OEM (Original Equipment Manufacturer) or must be authorized by OEM to participate in bid.
- 2.2 The OEM/Bidder must have executed at least 1 Single order of 80% value of the bid or 2 orders each of 50% value of bid or 3 orders each of 40% value of the bid for required items in the last 3 Year to Govt./PSU.
- 2.3 Average annual financial turnover during last 3 year ending 31 March of the previous financial year to be at least 50% of the Estimated Project Cost.

- 2.4 Firm Should not have been black-listed by any Govt./Semi Govt. Organization or PSU. Tenderer should provide non blacklisting certificate for last THREE years. The certificate should state clearly that the proprietor (in case of Propriety firm), all directors (in case of a Company), all partners (in case of Partnership firms and also Limited Liability Partnership firms) of the present firm (which is taking part in the tender process) have not been part of any company/firm which has been blacklisted with these individuals as incumbents in office of the blacklisted firm.
- 2.5 Tenderer(s) shall submit GST Registration number certificate. along with the online tender, without which the tender may not be considered.
- 2.6 Tenderer shall have to deposit firm registration number certificate with names and addresses of proprietor/partner/Director etc. Also e-mail address of firm is to be furnished.
- 2.7 Only those Firms which are manufacturer (OEM) or first and genuine authorized distributor/dealer/ agent of the OEM are eligible to quote in the tender.
- 2.8 The authorized distributor/dealer/agents quoting on behalf of their foreign principal would be treated as Indian agent.
- 2.9 Authorized distributor / dealers/ agent should attach a certificate from the principals assuring their association for at least next 03 years from the date of tender opening, so that servicing support will be available at the authorized service center for next 3 years.

3. Conditions Governing the Contract: -

- 3.1 The quantities shown in the tender notice are approximate and can be increased / decreased as per the requirement. The supplies shall be made according to the requirements of the department.
- 3.2 The Director General of Police reserves the power to relax or exempt any of the conditions of the tender for the reasons recorded for granting such exemption/relaxation.
- 3.3 Procurement will process as per GOP 151/22 and Sate purchase and procurement rule-2015 as amended 2022.
- 3.4 If tenderer is in a position to quote for supply of the entire quantity in accordance with the requirements stated in the attached Appendices to the Tender, all documents attached herewith should be duly filled in, signed and submitted online.
- 3.5 Purchaser reserves the right to load part quantity on L- 2 firm, if it is established that L-1 firm does not have full capacity to supply the entire tender quantity subject to L- 2 firm matching L- 1 rate on counter offer. If L - 2 firm fails to match counter offer, the same may be made to L -3 and so on.

4. Purchaser's Discretion: -

- 4.1 The contract of supply can be repudiated at any time if the supplies are not made to the satisfaction of the Director General of Police, MP.

- 4.2 The Director General of Police, MP, Bhopal reserves the right to accept any tender, not necessarily the lowest tenders and reject any tender without assigning any reasons thereof. Orders can be placed for the whole or part of the quantity at the discretion of the Director General of Police, M.P., Bhopal.

5. Earnest Money Deposited (EMD)

- 5.1. Exemption from depositing earnest money to MSME SSI units and Start up of the State of Madhya Pradesh as per rule 14.1 of Store Purchase and Service procurement rule-2015 as amended 2022 is applicable. If firm is registered as MSME SSI units and Startup in Madhya Pradesh state as OEM of quoted product.
- 5.2 If such MSME/SSI unit quotes for such product which is not manufactured by registered firm will not be exempted from EMD submission.
- 5.3 Earnest money to be submitted online as per tender condition.
- 5.4 No adjustment of earnest money against pending bills amount will be allowed. The tenders received without earnest money or with less than prescribed earnest money will not be considered.

6. Bidder Statement

- 6.1 Tenderers should submit their performance statement in the enclosed Proforma attached at **Appendix- 4** of Tender Enquiry.
- 6.2 The decision on the assessment of the past performance of the bidder by the purchaser will be final. (To be modified/amended on case-to-case basis as per requirement).

7. Two Bid System

Tenderers are required to submit their offers in two bid system online asunder: -

- 7.1 **Technical Bid:-**First Cover Should Contain the Scanned Copies of self attested document in Pdf Files as follows:-
- 7.1.1 Technical bid along with its specification leaflets, brochure, if any Composition of technical bid like
- 7.1.2 All the appendices duly signed on each page by the tenderer.
- 7.1.3 Proof for payment of Tender document Cost (Tender Fee)/ Earnest Money Deposit/EMD Exemption Certificates
- 7.1.4 Certificates like Registration certificate, GST NO, PAN No etc, **Appendix-1 & 4**
- 7.1.5 The Tenderer must submit Authorization certificate (in original) from OEM, as per Technical Specification attached here with.
- 7.1.6 Tenderer should provide an Undertaking of authenticity of electronic equipment's supplies (in original) from OEM Certificate
- 7.1.7 Financial details like Proof of Annual Turnover, Net Profit.
- 7.1.8 Tender Acceptance Letter in lieu of signed copy of tender document /RFP and also Letter of authorization to submit bid, if bid is being submitted on behalf of company.
- 7.1.9 Technical specification compliance data sheet.

7.1.10 Any other relevant document which the firm wishes to submit.

7.2 Financial BID

Second Cover Should Contain the Following: -

- 7.2.1 Pricebid/Financial Bid to be submitted as per financial Bid **Appendix-12**
- 7.2.2 Tenderer will attach copies of Govt Notification in support of all applicable Taxes/Duties quoted in the offer (in PDF format).
- 7.2.3 The rate / unit must not under any circumstances be altered and the rates must be entered in words as well as in figures.
- 7.2.4 Price Bid will remain valid for one year from for the date of tender.

8. Tender Sample:-

- 8.1 Samples of the items whose cost is more than Rs.50,000 (Rupees Fifty Thousand only) need not be submitted. Instead, Presentation/ Demonstration of these items may be mandatory at a date and place as intimated for this purpose.
- 8.2 The number of samples required for destructive testing has to be supplied by the supplier in addition to the quantity mentioned in the purchase order, at its own cost, as per the testing norms. The samples shall be picked up randomly for testing purpose.

9. Price Bids and Ranking of Financial Bids:

- 9.1 The tender will be decided on the basis of total cost, (Inclusive of all taxes and any other costs) **Appendix-12**
- 9.2 Successful bidder will have to mention the basic price and tax amount separately at the time of submission of the bill
- 9.3 In Case of any tax related dispute relating to GST the decision of GST Department will be final and binding, on the bidder.
- 9.4 Statutory variation in the rate of GST, taking place between the closing date of tender and the due date of original delivery shall be to the Buyer's account. For claiming any change in price due to such Statutory variation, the seller shall have to lodge claim before the Buyer providing documentary evidence of change in rate of GST taking place after the closing day of bid submission and original due date of delivery. Buyer shall issue necessary amendment in the contract to enable generation of supplementary invoice or revised invoice as the case may be.
- 9.5 No increase in price on account of statutory increase in the rate of GST taking place during the period of delivery period extension with liquidated Damages shall be admissible. Nevertheless, the Buyer shall be entitled to the benefit of any decrease in price on account of reduction in GST taking place during extended delivery period.

10. Correspondence Procedure & Clarifications :-

- 10.1 Any query/ Clarification/ Representation related to this Tender will be addressed to AIG (G), SB PHQ Bhopal at his e-mail address:- aigg-sb@mppolice.gov.in (To be modified/Amended on case-to-case basis as per requirement)
- 10.2 Tenderers are requested to write full name and designation of authorized

- signatory on all the correspondence to be made with the purchaser.
- 10.3 Firm should intimate any change in their Address/Telephone/Fax/e-mail immediately. The state of non-communication with firm at any stage will make the offer/contract liable for rejection and cancellation respectively.
- 10.4 In case of any contradiction noticed in Tender Enquiry the same will be, communicate to AIG(G), SB PHQ, Bhopal at his e-mail address:-aigg-sb@mppolice.gov.in

11. Price:

- 11.1 The per unit rates should be exclusive of all taxes but taxes (GST) should be mention Separately in the tender. All rates quoted in the tender must be based on free delivery in good condition, securely packed for different FOR destination across M.P. Specified in **Appendix- 12**
- 11.2 Tenderer should quote the base price of the quoted item and leviable taxes separately. If not mentioned separately, the quoted price shall be assumed as inclusive of all taxes.

12. Performance Security:-

- 12.1 Completion of tender procedure, successful bidder will be issued purchase order.
- 12.2 After the final decision of the tender, the earnest money of tenderers whose tenders have not been accepted, shall be refunded. The successful tenderer will have to submit 3% of the total cost as performance guarantee in the form of Bank Guarantee valid for two month beyond required warranty period on Stamp paper/duty of Rs. 0.25 % of total value of purchase order or maximum Rs. 25000/- according to the article 13 in the Indian Stamp act 1899.
- 12.3 The period of warranty will start from the last date of supply of goods to destinations as per FOR.
- 12.4 After receipt of Performance Security Deposit - EMD will be returned.
- 12.5 If successful tenderer applied for extensions of supply period, validity of performance Guarantee will have to be extended by such period. Failure of this will result in for forfeiture of Performance Security.
- 12.6 After satisfaction of buyer the Performance Security Guarantee will be returned after warranty period and deduction of any dues, what so ever.

13- Dispatch Instructions and Documentation: -

The Tenderer shall intimate the purchaser, the mode of transport and probable date of delivery of consignment by e-mail within seven (07) working days in advance.

14- Packing & Marking: -

- 14.1 The successful tenderer shall arrange supplies of goods in the specific terms and conditions of the supplies to destinations, with installation **within 90 days** of issue of supply order.
- 14.2 All goods / materials supplied shall be new and of best quality and as per Requirement/Specification.
- 14.3 The tenderer shall be responsible for the proper packing of the goods so as to avoid damages under normal conditions of transport by sea, rail,

road or air and for delivery of the material in good conditions to the consignee at destination. In the event of any loss, damage, breakage, leakage or any shortage tenderer shall be liable to make good of such loss and shortage found at the time of checking/inspection of the materials by the consignee, No extra cost on such account shall be admissible to him.

15 Pre-Delivery-Inspection:

- 15.1 The Director General of Police, MP Bhopal or his duly authorized representative shall have reasonable time access to the suppliers premises and shall have the power at all reasonable time to inspect and examine the materials and workmanship of goods.
- 15.2 The tenderer shall invariably furnish complete address of the premises of his office, godown and workshop, together with full name and address of the person who is to be contacted, for the purpose where inspection can be held.

16- Delivery of Stores:

- 16.1 In case of goods other than those of the approved quality, make or size are supplied, they will be rejected and will have to be replaced within the period prescribed for the completion of the order by the supplier without extra cost. Any expenses or loss caused to suppliers as a result of rejection or replacement of supplies shall be entirely at the tenderer's cost. Any loss caused to the department or any expenses incurred by the department in this shall be recoverable from the tenderer.
- 16.2 The rejected articles must be removed by the tenderer from the FOR Destination within 15 days of the date of information of rejection. If tenderer does not remove rejected articles within 15 days of rejection, tenderer will be responsible for any loss, damage and shortage to such rejected articles. Further, a demurrage charge shall be calculated and counted similar to the penalty clauses, on the cumulative value of the goods rejected and, on a period, calculated from the date of the letter intimating the rejection of sub-standard goods supplied.
- 16.3 Failure of the supplier to collect the rejected goods within six months from the date of intimation thereof, would render such goods liable for forfeiture, and the department shall be free to dispose of such goods in the manner deemed fit by the Director General of Police, MP.
- 16.4 The supplier shall be required to bear all risks of loss, leakage or damage and shall deliver the goods in good condition to consignees at the destination mentioned in the purchase order.
- 16.5 The goods shall be delivered at the destination in perfect condition. The supplier if so desires, may insure the valuable goods against loss by theft, destruction or damage by fire, flood undue exposure to weather or otherwise. The expenditure thereon shall be borne by the supplier.
- 16.6 In the case of laboratory test of any product, the expenses will bear by the Tenderer.
- 16.7 The supplier shall bear commission charges on remittances made in settlement of their claims.

16.8 Neither Railway Receipt will be accepted by VPP nor will the Railway Receipt which is freight to pay be accepted.

17. Penalty For Delay In Supply and Liquidated Damages (LD)

17.1 If the supplier firm requests for extension of supply period, the purchasing branch will examine it on merit basis and after obtaining approval from purchase acceptance officer, will issue a letter for extension of supply period accordingly. The extension of the delivery period can be done by the purchasing branch on the request of the firm for a maximum of 60 days with late fee deduction only once as per the requirement. If for any special reason the extension of supply period is to be done beyond 60 days, then it will be necessary to obtain the approval of the Director General of Police on the proposal along with justification.

17.2 After the expiry of the stipulated delivery period, which include extension period, if any, no item shall be accepted by the department under any circumstances.

17.3 No late fee will be deducted on the material supplied within the prescribed period. After this, late fee will be deducted at the rate of 0.50 % percent per week from the value of the supplied material in the extended period. If the period is extended again after the approval of the Director General of Police, then late fee at the rate of 1% percent per week will be deducted from the value of the material supplied during that period. The quantum of late fee shall not exceed 10 percent of the total purchase price. Late fee collection procedure- Appendix-5 of GOP 151/22

17.4 If the tenderer is unable to complete the supply or fails to comply with the terms and conditions of the tender within the specified or extended period, the D.G.P , MP shall have the liberty to arrange supply either through re-tender or otherwise. The Director General of Police may give 7 days notice in writing to the approved supplier to make good the failure, neglect or contravention thereof. He may also use the earnest money / security deposit of the contractor to make good such a loss.

17.5 The supply period and penalty on purchase order of imported/ foreign goods will be imposed and decided based on the facts & circumstances and nature of the goods. The Director General of Police reserves the right to take the final decision.

17.6 As per GOP 151/22 penalty will be imposed on non-supplied goods.

18. Payment Terms:

18.1 Payments would be made only after the receipt of all the items of each phase as specified in the supply order. In cases where part supply has been made and the supply order has been cancelled because of non-performance/supply, payment would be made for the supplied items (after deducting penalty of 5% of the value of the non-supplied items).

18.2 Payment will be made subject to availability of budget.

18.3 The successful tenderer shall execute an agreement on non-judicial stamp. If the contract value is upto 50 lacs the applicable stamp value for the contract is Rs. 500/- and if the contract value is above 50 Lacs the

execution agreement stamp value may be calculated as 0.1% of the contract value or of such value as may be prescribed by the law on the subject for contract deeds in the prescribed form, within 15 days from the date he/she is informed of the acceptance of his/her tender for the due performance of the contract. In case of failure of the execution of agreement within the specified period, the order shall be liable to be cancelled. The expenses on completion and stamping the agreement shall be borne by the supplier who shall furnish free of charge one copy of the agreement duly executed and stamped to the AIG (G) SB PHQ Bhopal, M.P., the other copy should be without non judicial stamp.

- 18.4 Any technical issue related to system should be attended within three working day of complaint and equipment should be ready for operation within maximum one week.

19. Option Clause:

- 19.1 Direct or indirect canvassing on the part of entrepreneur or their representatives will disqualify their tenders.
- 19.2 Tenderer shall not assign or sublet his contract or any part thereof to any other agency

19.2 Guarantee/Warranty:

- 19.2.1 Onsite OEM warranty for the period for Item/Equipment is as per specification
- 19.2.2 Any Technical issue related to system should be attended within 3 Working Day of complaint and equipment should be ready for operation within maximum one week.
- 19.2.3 In case of any defect of the Supplied material during the warranty period, it will be necessary to repair within a maximum of one week, otherwise performance guarantee will be deducted by charging penalty of 0.25% of the equipment basic price per day.

20. Fall Clause:-Fall clause will be applicable as under: -

The price charged for the stores supplied under the contract by the contractor shall in no event exceed the lowest price at which the contractor sells the subject store or offer to sell store of identical description to any persons/organization during the currency of this contract with applicable warranty clause.

21. Right To Rejection:

- 21.1 If the supplier firm fails to supply goods within stipulated delivery period, the purchase/supply order may be cancelled and the security deposit shall be forfeited by the department. In addition, the supplier firm shall be blacklisted for a definite period to be decided by the department, during which no supply order would be given to the blacklisted firm by the police department.
- 21.2 Upon breach of any of the General Terms and Conditions of contract and breach of the agreement by the supplier it will be lawful for the department to forfeit the Earnest money/ Security Deposit in whole or part, or impose such penalty as deemed fit and recover the same from the

Security Deposit or from any other payment to be made to the supplier or in any other manner as the deemed fit by the department, but without prejudice to right of the department to recover any further sum of money as damages from the supplier.

22. Risk Purchase clause:

In the event of failure of the supplier to deliver or dispatch the stores or provide the required services within the stipulated date/period of the supply order/ Purchas order, or in the event of breach of any of the terms and conditions of the supply order, the purchaser will have the right to purchase the subject store from elsewhere at the risk and cost of the defaulting supplier after giving a notice to the defaulting supplier. The cost as per Risk Purchase exercise may be recovered from the bill pending with the supplier even against any other supplies outside this contract or even from the pending bills with any other Police Units of Madhya Pradesh.

23. Force Majeure Clause :-

If at any time, during the continuance of this contract, the performance in whole or in part by either party of any obligation under this contract shall be prevented or delayed or becomes impossible or unlawful by reason of any war, hostility, acts of public enmity, civil commotion, sabotage, fires, floods, explosions, epidemics, quarantine restrictions, strikes, lockouts or act of God (hereinafter referred to "events") provided, notice of the happening of any such event is given by either party to the other within 21 days from the date of occurrence thereof, neither party shall by reason of such event, be entitled to terminate this contract nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance, and deliveries under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, and the decision of the Purchaser as to whether the deliveries have been so resumed or not, shall be final and conclusive, provided further that if the performance in whole or part or any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 60 days, either party may at its option terminate the contract provided also that if the contract is terminated under this clause, the purchaser shall be at liberty to take over from the contractor at a price to be fixed by the Purchaser, which shall be final, all unused, undamaged and acceptable materials, bought out components and stores in course of manufacture in the possession of the contractor at the time of such termination or such portion thereof as the purchaser may deem fit excepting such materials, bought out components and stores as the contractor may with the concurrence of the purchaser elect to retain.

24. Termination of Contract:

Time shall be the essence of the contract. The Purchaser shall have the right to terminate this Contract without any notice in part or in full in any

of the following Circumstances: -

- 24.1 The delivery of the material is delayed for causes not attributable to Force Majeure after the scheduled date of delivery.
- 24.2 The Seller is declared bankrupt or becomes insolvent.
- 24.3 In case Performance Security is not furnished within 15 days from the date of issuing of Purchase order
- 24.4 If supplied stores does not pass the desired specification during inspection.

25. Law Governing The Contract:

In case of any dispute, the arbitration shall rest with the D.G.P. or any authority nominated by him. The decision of the Director General of Police shall be binding upon the tenderer.

26. Effective Date Of Contract:

The time allowed for carrying out the supply will start from the day of issue of written supply orders (Purchase Order) for supply of store in accordance with the schedule indicated in the tender documents

27. Performance Clause:

In case the supplier fails to abide by the terms and condition; or to maintain the required technical/operational staff / equipment; or there is change in it production/service line affecting its performance adversely, or fails to cooperate; or there is repeated non- performance or performance below specified standards (Including after sales services and maintenance services)- in all such cases the department shall blacklist the vendor firm for a specified period as deemed fit by the Competent Authority. This action shall be in addition to any monetary claim due to be realized from the vender.

61. Grievance Resolution Clause:

A Grievance arising directly between the Firm and the Department concerning the interpretation, application or alleged violation of the agreement shall be originated at the level of the Firm CEO/head within 14 calendar days following the circumstances giving rise to the grievance. All such grievances shall be addressed to DGP MP for their resolution.

62. Dispute Resolution Clause:

Any dispute or difference whatsoever arising between the parties out of or relating to the construction, meaning, scope, operation or effect of this tender/contract or the validity or the breach thereof shall be settled under Indian Laws through civil courts having seat at Bhopal, MP.

63. Indemnification Clause:

The participating Vendor/Firm agrees that in case of award of contract to Vendor/Firm, they shall hold harmless and indemnify the tendering Department (including its officers/incumbents) from any and all losses, liabilities, deficiencies, costs, damages and expenses, arising out of Vendor's/Firm's negligence, whether it be sole or in connect with others,

in connection with performance of the services described herein. The maximum aggregate liability of the tendering department shall not exceed the portion of the purchase price of work/product paid by the department hereunder. In no event shall the Vendor/Firm be entitled to recover consequential or punitive damages resulting from a breach or violation of this Agreement.

APPENDICES (To be filled & submitted by tenderer)

| | |
|-------------|--|
| Appendix-1 | Check List |
| Appendix-2 | Tender Form |
| Appendix-3 | Technical Specification Compliance |
| Appendix-4 | Tender Application Form |
| Appendix-5 | Declaration |
| Appendix-6 | Undertaking of Registration Numbers |
| Appendix-7 | Tender Form (Authority Letter from OEM) |
| Appendix-8 | Tender Form (Commitment Letter for support from OEM) |
| Appendix-9 | Tender Form (Tender Acceptance Letter) |
| Appendix-10 | Tender Form (Price Bid Undertaking) |
| Appendix-11 | Tender Form (BG Performance) |
| Appendix-12 | Tender Form (BOQ) |

Instructions for Online Bid Submission:

The bidders are required to submit soft copies of their bids electronically on the MP TENDERS Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the MP TENDERS Portal, prepare their bids in accordance with the requirements and submitting their bids online on the MP TENDERS Portal.

More information useful for submitting online bids on the MP TENDERS Portal may be obtained at: <https://mptenders.gov.in/nicgep/app>

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://mptenders.gov.in/nicgep/app>) by clicking on the link "**Online bidder Enrollment**" on the MP TENDERS Portal **which is free of charge.**
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the MP TENDERS Portal.
- 4) Upon enrolment, the bidders will be required to register **their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage)** issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the MP TENDERS Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the MP TENDERS Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective 'My Tenders' folder. This would enable the MP TENDERS Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as "Online" to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- 5) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated

symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid opener's public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

- 6) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 7) Upon the successful and timely submission of bids (ie after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 8) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2) Any queries relating to the process of online bid submission or queries relating to MP TENDERS Portal in general may be directed to the 24x7 MP TENDERS Portal Helpdesk.

Check List**(To be submitted with First Page in Technical Bid Compulsory)****Name of Firm :****Name of Item :**

| S.No. | Description | Details | Page No. |
|--------------|---|----------------|-----------------|
| 1 | Tender Form | | |
| 2 | EMD (Online) | | |
| 3 | Tender Fee (Online) | | |
| 4 | Acceptance of all terms & Conditions of the Tender | | |
| 5 | Technical Bid | | |
| 6 | Financial Bid | | |
| 7 | Firm's Registration & Certificate Date | | |
| 8 | GST No & Certificate (Last Financial Year) | | |
| 9 | PAN Card & Detail | | |
| 10 | Income Tax Return certificate of Last Three Year | | |
| 11 | Turnover - Last Three Financial Year (Attach only CA Certificate) | | |
| 12 | Authorization /OEM Cert. of the item | | |
| 13 | Previous Supply order as per GTC | | |
| 14 | Spec. Compliance Sheet | | |
| 15 | Non-Blacklisting Certificate for Last 3 Years as per GTC | | |
| 16 | Under Taking for deduction TDS etc. | | |

Seal and signature

MADHYA PRADESH POLICE HEADQUARTER, BHOPAL

Tender Notice NO.SB /Store/2025-25(), Bhopal, Dated -12-2025

TENDER FORM

- (i) Tender for supply of -----
(Mention the name of the articles for which the tender is submitted)
- (ii) Name and full address of the Firm submitting the tender.
- (iii) Address to :- The Asstt. I.G. of Police, Special Branch (G), M.P., Bhopal.
- (iv) Reference :- This is with reference to tender No. Date
- (v) Tender fee amount of Rs and Earnest Money Deposit (EMD) amount of Rs. has been deposited vide Online Payment (UTR No..... Date) is enclosed herewith shown in the Tender notification published in various news papers and www.mpolice.gov.in and online website <https://mptenders.gov.in/nicgep/app>
- (vi) We agree to abide by all conditions mentioned in Tender Notice No.
Specific by the Asstt. I.G. of Police, Special Branch (G), M.P., Bhopal and also the General Terms and conditions as annexed with said Tender Notice and as given in the attached sheets, all the pages of which have been signed in the margin by us in tokens of our acceptance of the terms and conditions, therein.
- (vii) Mention the name of the article and its quantity of which tender is submitted rate quoted should be in figures as well as words. Rates of the articles should be shown in financial bid only not in technical bid.
- 1.
 - 2.
 - 3.
- (viii) We further agree to deliver mentioned stores within a period of days from the date of the receipt of firm order.
- (ix) We confirm the rates quoted above are valid up to One Year from the date of submission of tender.
- (x) Agreed to abide by terms and conditions laid down for NIT No.-.....dtd: -
-2025. Yes/No
- (xi) Signed on each pages as a token of acceptance of terms & condition laid down for NIT No. F-
/2025 Dated / /2025
Date :
Place:

Signature of the Proprietor/Manager
Representative of the firm on
behalf of the Firm giving tender

Technical Specification Compliance
(On the Letterhead of the OEM & Firm)
(To be enclosed with Technical bid)

- 1 Name of Item
- 2 Make / Model
- 3 Name of Manufacturing Company
- 4 Production Year of the item

Statement of Technical Specification Compliance

1. CCTV Surveillance System for Raj Bhawan – 01 QTY

| Sno | Specification | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|-----------|--|---------------------|----------------------------|---|
| A- | Scope of Work | | | |
| | 1. Madhya Pradesh Special Branch is in the process of provisioning of CCTV surveillance system at "Raj Bhawan Bhopal". | | | |
| | 2. Madhya Pradesh Special Branch intend to select System Integrators (SIs) for Supply, Installation, Testing, Commissioning, Migration, Operations and Management of CCTV surveillance system, on premises infrastructure including On-site manpower for five years at Raj Bhawan with a definite Service Level Agreement (SLA). | | | |
| | 3. The selected bidder shall ensure the successful implementation of the proposed solutions as well as provide capacity building support. | | | |
| | 4. Any functionality not expressly stated in this document but necessary to meet the needs of the successful operations of the system shall essentially be under the scope of bidder and for that no extra charges shall be admissible. | | | |
| | 5. Bidder shall implement and deliver the systems and components which are described in this RFP. | | | |
| | B- Objective | | | |
| | 1. VIP Security and Access Control | | | |
| | 2. Prevention of Crime | | | |
| | 3. Analytics for Command and Control Centre | | | |
| | C-Site Survey | | | |
| | 1. Bidders will be responsible for site survey to identify and analyse the exact situation of the site. | | | |
| | 2. Bidders should analyse the site requirement, its present status, applications hosting plan, the existing infrastructure and any other relevant details before designing the CCTV solution. | | | |
| | 3. Before doing site survey permission shall be obtained from the user agency. | | | |
| | D- Supply & Installation | | | |
| | Bidder shall use industry leading practices during the implementation w.r.t positioning and mounting the cameras, poles and junction boxes. | | | |
| | Check-points that need to be adhered to by the Bidder while installing / commissioning cameras are as follows:- | | | |
| | 1. Ensure surveillance objective is met while positioning the camera such that the required field of view is being captured as finalized in field survey. | | | |
| | 2. Ensure camera is protected from the on-field challenges of weather, physical damage and theft. | | | |
| | 3. Make proper adjustments to have the best possible image / video captured. | | | |
| | 4. Ensure that the pole is well placed for vibration resistance adhering to the road safety norms. | | | |
| | 5. Collusion preventive barriers around the junction box & pole foundation in case it's installed in collision prone place. | | | |
| | 6. Appropriate branding or colour coding (Police/Authority Branding) of poles and junction boxes, to warn mischief mongers against tampering with the equipment at the junction. | | | |
| | 7. Bidder shall arrange power supply for the proposed solution at all desired locations. | | | |
| | 8. Bidder shall comply with lightning-protection and anti -interference measures for system structure and equipment's. | | | |
| | 9. Earthing should be done for the entire power system. | | | |
| | 10. Bidder shall provide the Junction Boxes, posts and cantilever to mount the field | | | |

| Sno | Specification | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|---|---|---|----------------------------|---|
| | sensors like the cameras, active network components, controller and power backup (UPS) at all field locations, as per the specifications. | | | |
| | 11. Bidder shall provide standardized cabling for all devices and subsystems. | | | |
| | 12. Bidder shall ensure the installation of all necessary cables and connectors between the field sensors /devices assembly, outstation junction box, for pole mounted field sensors/devices the cables shall be routed down the inside of the pole and through underground duct to the outstation cabinet. | | | |
| | 13. All cables shall be clearly labeled with indelible indications that can clearly be identified by maintenance personnel. The proposed cables shall meet the valid directives and standards. | | | |
| | 14. Cabling must be carried out per relevant BIS standards. All cabling shall be documented in a cable plan by Bidder. | | | |
| | 15. The Bidder shall be responsible to provide networking solution and may assume that data rate of 5 Mbps per camera required at various locations. | | | |
| | 16. Bidder will be required and should do component sizing accordingly to connect all locations. | | | |
| | 17. Surge Protection devices shall be provided for outdoor equipment like cameras, racks, switches on both side of network, power source at Field rack, switch and control room racks, Ethernet+PoE for junction equipment's and Control room equipment's. | | | |
| | E-BOQ | | | |
| | The BOQ mentioned below are indicative and minimal. Bidders will be responsible for the site survey before proposing CCTV solution. The exact quantity and requirement shall be proposed as part of the technical bid of the Bidder. | | | |
| S.n | Item | Quantity | | |
| 1 | 4MP IR ANPR Camera with License and Software | 10 | | |
| 2 | 4MP IR Bullet Outdoor Network Camera | 261 | | |
| 3 | 4 MP IR PTZ Camera | 5 | | |
| 4 | Video management system | 1 | | |
| 5 | Video analytics license @ cameras (Bullet/PTZ) | 30 | | |
| 6 | Network switch L2 @ Control room | 1 | | |
| 7 | Outdoor industrial grade 8 port accessories | As per site requirement | | |
| 8 | Other network switch & accessories (If required) | As per site requirement | | |
| 9 | Computer & storage equipment & accessories | As per site requirement | | |
| 10 | Network equipments & Accessories | As per site requirement | | |
| 11 | Junction Box | As per site requirement | | |
| 12 | Surge protection device | As per site requirement | | |
| 13 | Outdoor armored rated cat 6 cable | As per site requirement | | |
| 14 | Double jacket cat 6 cable for indoor | As per site requirement | | |
| 15 | Optical fiber cable (If required) | As per site requirement | | |
| 16 | Online UPS (1 Hr. backup) for all PTZ, Dome and Bullet cameras | As per site requirement | | |
| 17 | Online UPS (1 Hr. backup) for control room (N+1) redundant. | 1 | | |
| 18 | Video wall/4K Monitor 43" besel less for monitoring with mounting accessories. | 1 Set of 86 inch Videowall/ 4 no. (4k monitor 43" Bezel less for monitor with mounting accessories) | | |
| 19 | Desktop for video wall/4K Monitor 43" | As per site requirement | | |
| 20 | Other software's (If required) | As per site requirement | | |
| 21 | Installation and civil work with poles and masts and other required accessories | As per site requirement | | |
| 22 | Network rack with furniture for all equipments at control room remote locations with complete electric fitting | As per site requirement | | |
| 23 | Air conditioner 2 ton | 1 | | |
| 24 | Network & power cables & accessories | As per site requirement | | |
| Bids should be submitted as per the Preferred OEM table for each item mentioned below- | | | | |
| S.n. | Component/Item | OEM List | | |
| 1 | Electrical Cables & Accessories | Anchor, Havells, Finolex, RR Kabel, Polycab | | |
| 2 | Network Cables & Accessories | RR Kabel ,Havells, Dlink, HPE, Dell, Netgear, Cisco | | |
| 3 | Network Equipments & Accessories like Switch etc | Belden, Cisco, Arista, Juniper, Dell, HPE | | |
| 4 | AC | LG/Samsung/Voltas/Carrier/Daikin/Bluestar/O-General | | |
| 5 | Surge protection device | Citel, MTL, DEHN | | |

| Sno | Specification | Compliance in value | Weather Compliance Yes/ No | /Actual proposed Specification (mentioning Make & Model of the item) |
|---|--|---|----------------------------|--|
| 6 | Storage solution | Dell, HPE, Cisco | | |
| 7 | Workstation | HPE, Dell, Lenovo | | |
| 8 | TV | LG, Samsung, Sony | | |
| 9 | Videowall | Delta, Barco, LG, Samsung | | |
| The OEM & vendors are requested to forward information of the product (Make & Model) which they can offer and also forward correct specification of there system against each parameter along with complied or not complied remarks. | | | | |
| F -Technical Specifications | | | | |
| The specifications indicated below are minimal specifications and the vendor may suggest higher /better / latest specifications, so as to insure the optimal performance of the system. | | | | |
| 4MP IR Bullet Outdoor Network Camera/ANPR Camera | | | | |
| S.N | Parameter | Specification | | |
| 1 | Image sensor & Resolution | 1/3" or better CMOS Progressive Scan & Minimum (4 MP) or better | | |
| 2 | Electronic Shutter speed | 1/3 to 1 / 10,000 s or better | | |
| 3 | Min illumination/ light sensitivity (Colour) | Minimum 0.5 lux (30 IRE, F 1.2) or better | | |
| 4 | Min illumination/ light sensitivity (B/W) | Minimum 0.2 lux (30 IRE, F 1.2) or better | | |
| 5 | Wide Dynamic Range | Minimum 85 Db or better | | |
| 6 | Backlight Compensation | ON/OFF | | |
| 7 | IRIS Control | Automatic | | |
| 8 | Focus | Autofocus | | |
| 9 | Automatic Gain Control | Auto / Manual | | |
| 10 | Colour, Brightness, Contrast | functionality Required | | |
| 11 | Frame Rate | 30 FPS for 4MP at H.264 Compression or better | | |
| 12 | Varifocal Lens Bullet | 2.7-13 FPS for 4MP at H.264 Compression or better | | |
| 13 | Varifocal Lens ANPR | IP 67 | | |
| Video | | | | |
| 1 | Day and Night functionality | Automatic, Colour, Mono. Should automatically switch to night vision mode by sensing the illumination level. | | |
| 2 | IR illuminator | Illuminator may be Internal or external & visibility should be at least 25 m | | |
| 3 | Video Resolution | Minimum 4 MP | | |
| 4 | Video Streams | Individually configurable 02 video streams (H.264, MJPEG) or better | | |
| 5 | Intelligent Video | Motion detection, Tampering Alert | | |
| Audio | | | | |
| 1 | Audio support | Required | | |
| 2 | Audio Compression | Minimum G.711 or better | | |
| Network & Interface | | | | |
| 1 | Interface | RJ-45 for 10/100 base-T Ethernet | | |
| 2 | Upgrade | Through web browser , online, firmware upgrade | | |
| 3 | Network Protocols support | IPv6, TCP/IP, HTTP, , DHCP, UDP, DNS, SMTP, RTP, RTSP, SNMP protocols/Should meet all functional requirement of the project | | |
| 4 | Network disconnection Alarm | Required | | |
| 5 | Compliance | ONVIF Profile S or better | | |
| Security | | | | |
| 1 | Password Protection | Required | | |
| 2 | HTTPS encryption | Required | | |
| 3 | IEEE 802.1X | Required | | |
| General | | | | |
| 1 | Operational temperature °C and humidity | Should be able to withstand Bhopal weather (0 to 50 degree Celsius) | | |
| 2 | IP rating | IP67 | | |
| 3 | Certifications | UL and BIS and CE/ EN/ FCC | | |
| 4 | Power | PoE / PoE+ and 12VDC/24VDC/230VAC Vendor has to supply suitable power for the cameras. | | |
| 5 | Local Storage/SD card | Camera shall be provided with SD card of 32 GB. In the event of failure of connectivity to the central server the camera shall automatically record video locally on the SD card. | | |
| 6 | | After the connectivity is restored these SD card based recordings shall be automatically merged with | | |

| Sno | Specification | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|--------------------------------|---|---|----------------------------|---|
| | the server recording. | | | |
| 4 MP IR PTZ Camera | | | | |
| 1 | Image sensor & Resolution | 1 / 2.8" or better CMOS Progressive Scan and 4 mega pixel | | |
| 2 | Focal Length | 3.5 to 94 mm or better | | |
| 3 | Zoom | 20 x Optical or better | | |
| 4 | Electronic Shutter | 1/1 to 1 / 10,000 s or better | | |
| 5 | Min illumination/ light sensitivity(Colour) | 0.5 lux (30 IRE, F 1.6) or better | | |
| 6 | Min illumination/ light sensitivity (B/W) | 0.2 lux (30 IRE, F 1.6) or better | | |
| 7 | Wide Dynamic Range | Minimum 85 Db or better | | |
| 8 | Backlight Compensation | ON/OFF | | |
| 9 | IRIS Control | Automatic | | |
| 10 | Focus | Autofocus | | |
| 11 | Automatic Gain Control | Auto / Manual | | |
| 12 | Frame Rate | 30 FPS for 4MP at H.264 Compression or better | | |
| Video | | | | |
| 1 | Day and Night functionality | Automatic, Colour, Mono. Should automatically switch to night vision mode by sensing the illumination level | | |
| 2 | Video Resolution | 4 Mega pixel or better | | |
| 3 | IR illuminator | Internal / External Illuminator & visibility should be at least 50 m: IR Illuminator should cover 360 degree area. | | |
| 4 | Video Streams | Individually configurable 02 video streams (H.264, MJPEG); | | |
| 5 | Intelligent Video | Motion detection, Tampering alert | | |
| 6 | Electronic Image Stabilization | Required | | |
| PTZ Function | | | | |
| 1 | PAN/TILT Range | 360° continuous pan & 90° tilt range | | |
| 2 | PAN/TILT Speed | 0.5° to 150°/sec for panning & 0.5° to 100°/sec for tilting & Up to 300°/s for Preset speed. | | |
| 3 | Presets | Minimum 150 Preset Points | | |
| 4 | Preset Tour & Pattern | Required | | |
| 5 | Privacy Mask | 08 Zones or better | | |
| Compression | | | | |
| 1 | MJPEG | Required | | |
| 2 | H.264 | Required | | |
| Audio | | | | |
| 1 | Audio support | Required | | |
| 2 | Audio Compression | G.711 or better | | |
| Network & Interface | | | | |
| 1 | Interface | RJ-45 for 10/100 base-T Ethernet | | |
| 2 | Upgrade | Through web browser, online, firmware upgrade | | |
| 3 | Network Protocols support | TCP/IP, HTTP, DHCP, UDP, DNS, SMTP, RTP, RTSP, SNMP protocols | | |
| 4 | Alarm Event | Events / alerts send via FTP, HTTP, email, Pre-Post alarm video buffering. | | |
| 5 | Network disconnection Alarm | Required | | |
| 6 | Compliance | ONVIF Profile S or higher | | |
| Security | | | | |
| 1 | Password Protection | Required | | |
| 2 | HTTPS encryption | Required | | |
| 3 | IEEE 802.1X | Required | | |
| General | | | | |
| 1 | Operational temperature °C & Humidity | Should withstand Bhopal weather (0 to 50 degree Celsius) | | |
| 2 | IP rating | IP67 | | |
| 3 | Power | PoE / PoE+ and 12VDC/24VDC/ 230VAC Vendor has to supply suitable power for the cameras. | | |
| 4 | Certifications | UL and BIS and CE/EN/FCC | | |
| | Local Storage/SD card | Camera shall be provided with SD card of 32 GB. In the event of failure of connectivity to the central server the camera shall automatically record video locally on the SD card. | | |

| Sno | Specification | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|------------|--|---|----------------------------|---|
| | After the connectivity is restored these SD card based recordings shall be automatically merged with the server recording. | | | |
| 1.1 | Server | | | |
| 1 | Processor | 2 x Intel Xeon latest generation processors. 64-bit x86 processor fully binary compatible with 64/32-bit applications. Cores: 2 x 16-core (minimum) with a minimum clock rate of 2.4 GHz. | | |
| 2 | Memory | Minimum 64GB of the latest DDR4 memory using minimum 16GB DIMMs or higher. Advanced ECC with multi-bit error protection. The memory should have native capability of identifying and reporting the densities of the memory installed in the server. | | |
| 3 | HDD Controller | 12 Gbps SAS/NVMe RAID controller supporting RAID 0, 1, 5, and 6 with a minimum of 2GB battery-backed cache. | | |
| 4 | HDD | 2 x 1.92TB SSD hot-swappable or higher. | | |
| 5 | Network Controller | Network controller: minimum 4 x 1Gbps ports and 2 x 10/25Gbps ports with 10Gbps transceivers. | | |
| 6 | Bays | Minimum 8 hot-swappable drive bays. | | |
| 7 | System Chassis | Rack mount, 2U (maximum), redundant hot-swappable power supply with platinum efficiency. | | |
| 8 | OS Certificate | Certification for the latest server versions of Windows and Linux. | | |
| 9 | IDC Ranking | OEM should be ranked within the top 3 as per the IDC report for any one of the previous four quarters in India for servers. | | |
| 1.2 | Workstation | | | |
| 1 | Processor Make | Intel | | |
| 2 | Processor Generation | Intel Core i7, 10th Generation or higher | | |
| 3 | Number of Cores | 8 or above | | |
| 4 | Cache (MB) | 16 or above | | |
| 5 | Processor base Frequency (GHz) | 2.90 GHz or above | | |
| 6 | Motherboard | Intel / OEM | | |
| 7 | Type of RAM | DDR4 or better | | |
| 8 | RAM Size (GB) | 8 GB or above | | |
| 9 | RAM Speed (MHz) | DDR4-2666 or better | | |
| 10 | RAM Expandability up to | 64 GB or above | | |
| 11 | Type of Hard Disk Drive | HDD / SSD or Both | | |
| 12 | Capacity of HDD (GB) | (a) 512 SSD / 1000 SSD or (b) 512 SSD + 1TB HDD | | |
| 13 | Operating System (Factory Pre-Loaded) | Windows 11 Professional 64 bit or latest | | |
| 14 | Input Devices | Standard USB Keyboard - Wired | | |
| 15 | Mouse | Optical USB Mouse - Wired | | |
| 16 | Ports | Four or more | | |
| 17 | HDMI /VGA or both | Yes | | |
| 18 | Other | Microphone, Stereo headphone and other standard port | | |
| 19 | Networking | Ethernet - Yes - 10/100/1000 | | |
| 20 | Display | Diagonal Viewing Size (Inch) - 15.6 Inches or above. | | |
| 21 | Resolution | 1920 x 1080 FHD or above | | |
| 22 | Input Devices | Standard USB Keyboard | | |
| 23 | Mouse | Optical USB Mouse | | |
| 24 | Anti-Virus | To be included with 5 years licence | | |
| 25 | BEE / Energy Star for the given Model | Yes | | |
| 26 | Certifications | (FCC/CE/CB), BIS and RoHS | | |
| 27 | MS Office | Factory preloaded MS Office 2021 (Home and business life time) | | |
| 28 | Warranty | On Site OEM Warranty (Year) - 5 Years comprehensive warranty | | |
| 1.3 | VMS Software | | | |
| 1 | The system should be easy to install, learn, operate and manage: | | | |
| | The VMS must have rich user interface that provides one-click access, drag-drop, menu, | | | |

| Sno | Specification | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|-----|---|---------------------|----------------------------|---|
| | customizable GUI etc. to enhance operational efficiently in daily tasks and maintain The VMS shall have ability to respond fast & shall be applicable to all processes, functions, features, and screens of a video management system. | | | |
| 2 | Simple, clear documentation including User Guides (how to use the product) and Technical Reference Manuals (quick reference on functions and procedures) shall be submitted | | | |
| 3 | Scalability: The proposed video management system shall be able to support any no. of CCTV Cameras so as to accommodate any future expansion System shall support viewing of video from multiple locations and by multiple users. The VMS shall support 500 or more cameras. Well documented Software Development Kit (SDK): The SDK should include a rich, easy-to-use Application Programming Interface (API) support if required. Input and output support: The VMS shall have ability to receive and support recording based on inputs or alarms.Event management: The VMS shall have ability to enforce custom settings for event detection, alarm notification, recording, input/out (I/O) control, and other features in response to events. The alarm management module shall support graphical displays with interactive icons to display the status of the cameras & other inputs. Support for standard protocols: The VMS shall have ability to maintain independence from any one vendor & shall support open standard protocol i.e. ONVIF profile S | | | |
| 4 | Smooth software upgrade path for support of new devices, drivers and operating systems. System should be able to implement software upgrades without requiring all hardware components to be reconfigured. System should provide Database Server Hot Redundancy from day one, Camera Server Hot Redundancy, and automatic fault tolerance for robust system uptime and Distributed database and video storage. | | | |
| 5 | On screen help and instructions: The system should provide help and assistance through help guide on same station. | | | |
| 6 | User management with user roles & privileges right to view, acknowledge alarms shall be available | | | |
| 7 | Centrally controlled user management - Users, roles, rules and privileges should be stored on the central VMS server allowing any authorized user to log into any workstation. | | | |
| 8 | Recording Server: | | | |
| | · The System shall not restrict the number of recording servers | | | |
| | · Shall support dual streaming | | | |
| | · Shall allow each camera to be viewed independently by client viewer. | | | |
| | · Recording from connected cameras shall be stored in NAS/SAN | | | |
| | · Shall support multiple storage form | | | |
| | · Shall support recording in all resolution at desired FPS | | | |
| | · Shall support video cum audio recording | | | |
| 9 | The VMS shall have ability to configure access privileges and other parameters for all users. | | | |
| 10 | Support for event based or schedule-based recordings to optimize bandwidth and storage | | | |
| 11 | Customizable recording retention period for specific camera. | | | |
| 12 | Remote Users: Should support at least 10 remote users via network/web browser/client software | | | |
| 13 | Wizard driven installation of software updates for VMS server and client machines | | | |
| 14 | Support and configuration options for virtual matrix. | | | |
| 15 | Copy or Clone option to install new device based on already configured device. | | | |
| 16 | The VMS shall have ability to easily install, configure, modify, search and remove surveillance devices with automatic discovery of IP devices using external tool or in built options. | | | |
| 17 | Option to install other devices like Analog cameras, encoders, microphone-speakers. | | | |
| 18 | The VMS shall have ability to logically group devices based on installation location & device type. | | | |
| 19 | The VMS shall have ability to search and view device(s) based on standard criteria like Camera ID/ Name, Location, Group, etc | | | |
| 20 | The VMS shall have ability to enforce access privileges (View /Add /Edit/ Remove) to device(s). | | | |
| 21 | The VMS shall have ability to draw and configure map of surveillance facility, choose back-ground images, User-definable symbols (for deployed devices)and programmable functions, e.g., hyperlinks, controlling video feed, initialling alarms etc. | | | |
| 22 | Remote firmware updates notifications and wizard driven installation shall be part of camera feature. | | | |
| 23 | Provision for independent storage settings for individual camera feeds. | | | |
| 24 | The VMS shall have ability to configure multiple streams with different quality parameters e.g. Codec (H.264, MPEG, JEPG) , resolution, frame & bit rate etc. | | | |
| 25 | Support for full duplex audio | | | |
| 26 | a) The VMS shall have ability to create and assign pre-configured views/layouts for | | | |

| Sno | Specification | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|-----|--|---------------------|----------------------------|---|
| | monitoring including features like: | | | |
| | b) The VMS shall support Sequencing in Views, whereby the pre-sets of PTZ cameras as well as fixed cameras are cycled on a timed basis, within a single view or within the view port of a multiple camera view. | | | |
| | c) Linking images, maps a view, | | | |
| | d) The VMS shall support sequence views. A sequence view consists of a single camera view, which can be cycled on a time basis. Pan-tilt-zoom cameras, which support pre-set positions, can have these pre-sets cycled on a time basis. In this way an operator can view a variety of pre-sets on a series of PTZ cameras. Fixed cameras can also be included in the sequence and cycled accordingly. | | | |
| | e) Special views for widescreen monitors, | | | |
| | f) Updating a view only on motion detection, | | | |
| | g) Granting or revoking permission to use the view etc. | | | |
| 27 | Setup Virtual matrix on operator workstation monitor | | | |
| 28 | Basic recording options [Full, Scheduled recoding, Motion detection recording, external/internal hardware or software events / trigger-based recording] | | | |
| 29 | Advanced recordings options [Video only, Video plus Audio, Retention rules, Archive/back-up rules, and storage limits report set. | | | |
| 30 | The VMS shall have ability to configure, store and track both pre- and post-event recordings. The pre-post event time should be configurable. | | | |
| 31 | PTZ configuration including pre-sets, patterns, patrolling, masking, priority and permissions should be possible from camera web page | | | |
| 32 | The VMS shall have ability to support operations from Web/IE client, Windows Client /Mobile devices etc. Popup display on the screen in case of any event/alarm/threshold etc. | | | |
| 33 | Multiple monitor support: The system should allow connecting minimum 2 or more as per proposed Solution multiple monitors on single client workstation (loaded with suitable graphics card) and display different contents on each of the connected monitor. | | | |
| 34 | All panes / tiles should indicate mode (live or recorded), source (camera name/location) and date/time and applied quality information (FPS, CODEC). A matrix view should support minimum 2x2, 3x3, 4x4 on small monitors and 9x9 formats on video wall and any number of multiple screen divisions. | | | |
| 35 | PTZ controls: When PTZ is deployed and enabled, system should offer a separate control panel for PTZ operations. The control panel should include list of pre-sets, patterns, tours, eight directional & home positions and zoom-in & zoom-out buttons. A dedicated joystick can also be used for PTZ operations. | | | |
| 36 | PC keyboard shortcut keys: Along with menu-driven interface, a VMS should also support shortcut keys to helps operators quickly switch between different cameras/matrix views. | | | |
| 37 | Snapshots: System should allow creating a still image from live or recorded feed and storing it into a workstation. | | | |
| 38 | Replay facility with timeline control to display and play back recorded video for one or more cameras. Playback shall be possible on 1 or more cameras simultaneously for all cameras currently displayed in the Video Workspace. | | | |
| 39 | The VMS shall have ability to bookmark / add-to-favorites in both live and playback modes. Bookmarks shall be created, search, removed by the owner. | | | |
| 40 | Digital zoom to enlarge portion of an image to provide superior zooming capability. | | | |
| 41 | The VMS shall have ability to Start/Stop Recording on demand (manually). | | | |
| 42 | Option to view surrounding cameras: The system should enable operators to configure camera feed and based on group/subgroup details, its surrounding cameras should be automatically displayed on separate panes based on alarms. | | | |
| 43 | Evidence export feature: The system should allow users to export audio/video evidence in open format for internal investigation or to share authentic proof to public authorities and outside agencies. Alternatively, the bidder may provide the required player/software to run the exported video file if the VMS does not support to export in avi or another standard format. | | | |
| 44 | The VMS shall provide an advanced search of recorded video. The search shall be based on recording time, camera and recording details. Wildcards shall be accepted for the Point ID, description, area, priority and value for alarm/event activated recordings. Smart (motion) Search: The feature should enable users to select area of interest on any given view of camera recording, and search for motion incidents within that area | | | |
| 45 | The VMS should have onscreen process guidance/help menu & instruction | | | |
| 46 | The system should offer following playback controls | | | |
| | · Play/Pause | | | |
| | · Forward playback | | | |
| | · Reverse playback | | | |
| | · Frame forward | | | |
| | · Frame rewind | | | |
| 47 | Evidence Printing: Option to create and print a small surveillance report that includes | | | |

| Sno | Specification | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|------------|--|--------------------------------------|----------------------------|---|
| | image(s) and comments about recorded incident from command control system. | | | |
| 48 | The system should enable users to view different graphics to preconfigured displays. | | | |
| 49 | The system/camera should offer options to set Brightness, Contrast, Sharpness etc. | | | |
| 50 | The VMS/VA system should have in-built, configurable, basic motion detection analytic engine that efficiently | | | |
| | · Detects motion | | | |
| | · Virtual line | | | |
| | · Auto tracking / person annotations | | | |
| | The system should have event/alarm management module that allows generating, distributing, storing, tracking and reporting of incidents and events as they occur. The VMS shall have ability to: | | | |
| | · System should support latched alarm. i.e. Alarms once reported, requires correction to be removed from the system. | | | |
| | · Configure automatic/programmed responses based on priority and escalation level for specific event(s). | | | |
| | · Send email and SMS notifications to respective users. | | | |
| | · Search and view list of triggered events based on source, priority, event type, date/time, etc. | | | |
| | · Acknowledge events – Change status, key-in more information | | | |
| | · Escalate event records to the next level of users or share event records with other users through command control. | | | |
| | · Allow manual respond to triggered events including activating external hardware and transmitting I/O commands. | | | |
| | · Consolidated e-reports generation with archive video, images, text and other file attachments through command control | | | |
| 51 | The VMS/ Command control system should provide interactive reporting interface with standard and user-defined custom reports and filtering options to: | | | |
| | · Retrieve audit trails - user activities, errors and system logs. | | | |
| | · View list of hardware units and selected configuration options. | | | |
| | · Storage usage report detailing the available and consumed storage for specific Recording Servers in the VMS | | | |
| 58 | The system should have Inbuilt diagnostic utility that gathers several different functions of deployed hardware and software modules and attempts/assist to correct the problem in case of deviations from the established baselines occurs. | | | |
| 59 | The facility should be there to extract & save the video footages / images on CD, DVD, USB, External Storage etc. | | | |
| 60 | The system should continuously monitor the connectivity with camera even when not connected for live or recording. Upon any failures, system should raise as alarm. | | | |
| 61 | Various video analytics that shall be offered on identified cameras are: - | | | |
| | a) Loitering /Vandalism around area under observation | | | |
| | b) Video Loss Alarm | | | |
| | c) People Head Counting or Crowd Recognition | | | |
| | d) Camera Tampering/Camera ON/OFF video alarms | | | |
| | e) Image Masking- Privacy Protection Video Tracking of Person | | | |
| | f) Video Tracking of Person/Object in field of view | | | |
| | g) Left/Abandoned Item Detection and Removed Item Detection | | | |
| | h) Virtual Fence/Perimeter Breach/ Entry —Exit in restricted zone | | | |
| 1.4 | 8 port Industrial switch | | | |
| 1 | Switch Should Support 8 10/100BASE-T PoE, 2 SFP ports | | | |
| 2 | switch should support Operating Temperature 0 to 60 °C | | | |
| 3 | Switch Should Support Min. 20 Gbps Switching Capacity and Maximum 64 Byte, Packet Forwarding Rate is 14.88 MPPS, 8K MAC address table. | | | |
| 4 | Switch Should Support IEEE 802.3af & at compliance (for PoE ports) and minimum 240W Power Budget. | | | |
| 5 | Switch Should Support IGMP Snooping v1, v2 and MLD snooping v1/v2 | | | |
| 6 | Switch Should Support 4K VLAN ID's, Min 256 static VLAN | | | |
| 7 | Switch Should Support Port Mirroring One to one/Many to One, | | | |
| 8 | Switch should support Quality of Service (QoS), 802.1p, Strict, Weighted Round Robin (WRR), Bandwidth Control. | | | |
| 9 | Switch Should Support IP interfaces, Static routing for inter-VLAN Communication | | | |
| 10 | Switch should be supplied with the all-necessary components like Power supply, Power cord, Console Cable, Rack-mount kit, Installation Guide, etc. and necessary software image file to fulfil all above-mentioned feature set from day 1. | | | |
| 1.5 | 1 KVA UPS | | | |
| 1 | Capacity | 1 KVA, 800 Watt (1Øinput/ 1Ø output) | | |
| 2 | Topology | True Online Double Conversion UPS | | |

| Sno | Specification | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification, (mentioning Make & Model of the item) |
|-----|--|--|----------------------------|--|
| | | Standalone UPS with single battery bank | | |
| 3 | Technology | Microprocessor based, PWM with IGBT based, Phase neutral reversal protection | | |
| | INPUT | | | |
| 1 | Input Facility | 1Ø, 2-wire & Ground, (Phase & Neutral + Ground) | | |
| 2 | Input Voltage Range | 160 ~ 280 VAC (On 100% Load), 120~290 VAC (On 50% Load), | | |
| 3 | Input Frequency Range | 45 ~55Hz, Autosensing | | |
| 4 | Input Power Factor | ≥0.99 | | |
| 5 | THDI | ≤10% | | |
| | OUTPUT | | | |
| 1 | Power Factor | 0.8 | | |
| 2 | Nominal Output Voltage | 220/230VAC | | |
| 3 | Voltage regulation | ± 1% static, ± 5% for Dynamic Load | | |
| 4 | Nominal Frequency | 50Hz | | |
| 5 | Waveform | Sine wave | | |
| 6 | Crest factor | 0.125694444 | | |
| 7 | Total harmonic distortion (THDY) | < 3% (linear load); <5% (nonlinear load) | | |
| 8 | Output Short Circuit Protection | Electronic, trip | | |
| 9 | Transfer time | Mains mode to battery mode: 0 ms; Inverter mode to bypass mode: < 4ms | | |
| 10 | Maintenance/Manual Bypass | Automatic & Manual | | |
| 11 | DC Ripple factor | ≤1% | | |
| 12 | Efficiency | Overall (Ac to AC): > 92% | | |
| 13 | Inverter overload capability | Upto 100% infinite | | |
| | | >100% ~ 110%: for 60 Secs; | | |
| | | >110% ~ 130%: for 10 Secs; | | |
| | | > 130%: upto 1 seconds | | |
| | BATTERY & BATTERY BANK CHARGER | | | |
| 1 | DC BUS voltage | 36 VDC | | |
| 2 | Batteries Type | Sealed Maintenance Free, 12 V | | |
| 3 | Battery Make | Exide/Quanta | | |
| 4 | Battery Back up | 1 hour on full load | | |
| 5 | Number of Battery Banks | One or Two maximum | | |
| 6 | Required VAH | 1512 | | |
| 7 | Minimum Charger Rating | The Charger should be able to deliver charging current (minimum) equivalent to 10% of Battery AH rating offered. | | |
| 8 | Battery re-charge time (After complete discharge) to 90% capacity | 8-10.Hours | | |
| 9 | Cold Start | should be provided | | |
| | Environmental | | | |
| 1 | Operating Temperature | 0-50 degree C | | |
| 2 | Type of Cooling | Forced Air | | |
| 1.6 | 24 port Central Switch | | | |
| 1 | Architecture | | | |
| 2 | Shall be 19" Rack Mountable Stackable or Integrated solution | | | |
| 3 | Switch shall have 24 Nos. of 10/100/1000 Base-T POE+ Ports and 4 nos. 1/10G SFP+ ports support. | | | |
| 4 | Shall have one Console (RJ-45/Serial) Port | | | |
| 5 | Shall have switching capacity of 128 Gbps | | | |
| 6 | Shall have up to 95 million pps switching throughput | | | |
| 7 | Shall support Stacking functionality | | | |
| 8 | Shall support minimum 370W POE+ budget and 4MB packet buffer | | | |
| 1.7 | CCTV Pole | | | |
| 1 | Mounting structure: Use minimum 5Mtr. High Cylindrical GI Pole (Class B) or suitable structure with 4.5 Mtr. Minimum vertical clearance under the CCTV Camera from the Road surface. | | | |
| 2 | The mounting shall be capable of withstanding roadside vibrations at site of installation. | | | |
| 3 | It shall be provided with suitable walkway for maintenance access. | | | |
| 4 | The side interior and rear of enclosures are provided in maintenance free finish. All enclosure is flat and wipe clean. | | | |
| 5 | For Structural safety, structural safety certificate shall be provided from qualified structural engineers. | | | |
| 6 | Wind Load: WL9 as per EN12966 to withstand high wind speeds and its own load - HT | | | |

| Sno | Specification | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|-------------|---|--|----------------------------|---|
| | Steel Conforming to grade S355 | | | |
| 7 | Pole Base plate - Fe 410 Conforming to IS 226/IS 2062 | | | |
| 8 | Foundation Bolt- EN 8 grade or better | | | |
| 9 | Pole shall be hot dip galvanized as per IS 2629/IS2633/IS 4759 provided with average coating thickness of 80 Micron or higher. The galvanizing shall be done in single dipping. | | | |
| 10 | The pole shall be installed cast in- SITU RCC foundation on studs with nuts & washers and with adequate number of foundation bolts for greater rigidity basis the soil bearing test report of the actual site. | | | |
| 1.8 | ANPR Pole | | | |
| 1 | The Conical/Polygonal pole and cantilever arm of 2 Meter should be designed to with stand maximum wind speed as per IS: 857 (Minimum 50 m/Sec). Certificate for the structural integrity of the pole shall be submitted to justify the pole dimensions. | | | |
| 2 | Pole shaft and cantilever have conical/polygonal cross section and shall be preferably continuously tapered with single longitudinal welding. | | | |
| 3 | Pole shaft shall be provided with a grade flange plate of suitable thickness with provision of fixing suitable no. of foundation bolts. This base plate shall be filleted welded to the pole shaft at two locations i.e., from inside & outside. | | | |
| 4 | Conical/ Polygonal pole shall have approximately 500 MM door opening length at the elevation of 500 mm from base plate. The door shall be vandal resistant and shall be weatherproof to ensure safety of electrical connections inside the pole. The door shall be flush fit with locking facility. The pole shall be additionally reinforced with welded steel section, so that the section at door is unaffected and undue bucking of the cut section is prevented. | | | |
| 5 | Material of construction shall be: | | | |
| A | Conical/ Polygonal pole shaft - HT Steel Conforming to grade S355 with minimum plate thickness of 3 MM | | | |
| B | Conical/Polygonal cantilever arm shaft - HT Steel Conforming to grade S355 with minimum plate thickness of 2.5 MM | | | |
| C | Pole base plate - Fe 410 Conforming to IS 226/IS 2062 with minimum thickness of 16 MM | | | |
| D | Pole foundation Bolt- EN 8 grade, GI | | | |
| 6 | Pole shall be hot dip galvanized as per IS 2629/IS2633/IS 4759 slandered with average coating thickness of 86 Micron. The galvanizing shall be done in single dipping. | | | |
| 7 | The pole shall be installed on a precast or cast in- SITU RCC foundation on studs with nuts & washers and with a set of four foundation bolt for greater rigidity basis the soil bearing test report of the actual site. | | | |
| 1.9 | Double Jacket cat6 cable | | | |
| 1 | 4 Pair Cable with integral cross -member pair separator for uniform characteristic impedance. | | | |
| 2 | Category 6 Unshielded Twisted 4 Pair 100 Ω cable shall be compliant with ANSI/ TIA/ EIA-568-C.2- 1/ ROHS Additional ISO/ IEC 11801 2ndEd. Transmission Performance Specification for 4 Pair 100Ω, Category 6 Cabling | | | |
| 3 | Category 6 UTP cables shall extend between the work area location and its associated telecommunications closet and consist of 4 pair, UTP cable jacket. | | | |
| 4 | Conductor: Solid Copper | | | |
| 5 | Conductor Diameter: 0.574, ± 0.01mm (23AWG) | | | |
| 6 | Inner Jacket: LSZH/ PE/ PVC | | | |
| 7 | Outer Jacket: PE -Black, Anti-Rodent, LSZH/ PE/ PVC | | | |
| 8 | Max Temperature: -10°C to +60°C | | | |
| 9 | Mechanical Test | | | |
| 10 | Should have Pulling force more than 10 Kg. | | | |
| 11 | Electrical Test | | | |
| 12 | Conductor Resistance: <9.38Ω /100m | | | |
| 13 | Resistance Unbalance 5% Max | | | |
| 14 | Mutual Capacitance: < 5.6nF/100m | | | |
| 15 | Capacitance Unbalance: 330pF/100m. | | | |
| 16 | Characteristic Impedance: 100 +15 Ω conductor | | | |
| 1.10 | Outdoor JB | | | |
| S.n | Parameter | Min. Specification | | |
| 1 | Size | Suitable size as per site requirements to house the field equipment. | | |
| 2 | Cabinet Material | GI with powder coated (Antirust coating) | | |
| 3 | Material Thickness | Min 1.2 mm | | |
| 4 | Number of Locks | Three Point Lock | | |
| 5 | Protection | IP 55, Junction Box design should ensure to keep the temperature within suitable operating range for equipment's and should also avoid intentional water | | |

| Sno | Specification | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning make & Model of the item) |
|-------------|--|--|----------------------------|---|
| | | splash and dust intake. With built-in redundant fan and filter assembly inherent in the design. Junction Box design should ensure to keep the Operating temperature range of 10° C to 50° C. | | |
| 6 | Mounting | To be mounted on a Base stand made up of powder coated MS Angle Profile with minimum height of 600 MM and should be covered from all sides with GI/MS powder coated sheet of minimum 1.2 MM thickness. The height of the stand to be selected based on the surface gradient to ensure that in case of waterlogging the logged water should not enter the JB. | | |
| 7 | Cabling | All cabling to be brought from the bottom through double compression glands to ensure that the IP rating is not compromised. | | |
| 8 | Form Factor | Rack Mount/DIN Rail | | |
| 9 | Other Features | Rain Canopy, Cable entry with glands, proper earthing and Fans/any other accessories as required for operation of equipment's within junction box. | | |
| 10 | Additional | Pocket to keep papers/file on inner side of the door LED light with limit switch to switch on the light once door is open. Additionally, a power off switch also to be available on the LED light. | | |
| 1.11 | Network SPD | | | |
| 1 | Connection Type | Series connection | | |
| 2 | Application Type | 10/100/1000 Mbps LAN | | |
| 3 | Transmission Speed | 1 Gbps | | |
| 4 | Application | Secondary 8 wire category 6 | | |
| 5 | Connector | RJ 45 | | |
| 6 | Nominal Surge Current | Core to Core: 350 A (8/20 μs) Core to Ground: 2 KA (8/20 μs) | | |
| 7 | Pulse discharge current | 1 kA | | |
| 8 | Maximum Continuous | ± 5 V DC (± 57 V DC / PoE+) | | |
| 9 | Enclosure | IP20 | | |
| 10 | Temperature (Ambient) | -10°C to 55 °C or above | | |
| 11 | Voltage Protection level | Core – core ≤ 20 V Core – Earth ≤ 700 V | | |
| 12 | SPD Compliance | IEC 61643-21 or equivalent BIS | | |
| 13 | Approvals | CU, UL Listed or equivalent BIS | | |
| 1.12 | Power SPD | | | |
| 1 | IEC test Classification | II / T2 or BIS Equivalent | | |
| 2 | Technology | L-N: MOV Technology & N-PE: GDT Technology | | |
| 3 | Pluggability | Pluggable for Safe and Easy Maintenance and have provision of testing respective plugs for preventive periodic health monitoring. | | |
| 4 | Nominal Voltage Un | 240 / 415 V AC (TN-S / TT) | | |
| 5 | Maximum Continuous Operating Voltage | 335 V AC | | |
| 6 | Nominal Discharge Current | 20 kA | | |
| 7 | Maximum Discharge Current | 40 kA | | |
| 8 | Short Circuit Current rating ISCCR | 25 kA | | |
| 9 | Voltage Protection Level Up (L-N) | ≤ 1.5 kV | | |
| 10 | Temporary Over Voltage UT (L-N) | 415 V AC (5s / Withstand Mode) or better | | |
| 11 | Temporary Over Voltage UT (N-PE) | 1200 V AC (200ms / Withstand Mode) or better | | |
| 12 | Response time | L-N: ≤25ns N-PE: ≤100ns | | |
| 13 | Mounting | DIN Rail | | |
| 1.13 | ANPR Software | | | |
| 1 | Vehicle Detection and Video Capture Module | | | |
| A | The System should automatically detect a vehicle in the camera view using video detection and activate license plate recognition. Suitable external IR Illuminator with Eye Safety test report/ equivalent certification should be used in conjunction with ANPR | | | |

| Sno | Specification | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|--|---|---------------------|--|---|
| | h) Virtual Fence/Perimeter Breach/ Entry –Exit in restricted zone | | | |
| G 2-Automatic number plate recognition system | | | | |
| 1 | The ANPR System shall enable monitoring of vehicle flow at strategic locations. | | | |
| 2 | The system shall support real-time detection of vehicles at the deployed locations, reading its number plate, database lookup from central server and triggering of alarms / alerts based on the vehicle status as specified in the database. | | | |
| G3 – Storage | | | | |
| 1 | Complete system with appropriate accessories & fixtures for recording, storage of footages with a provision of retention for minimum 30 days. | | | |
| 2 | Ensure ability of the system to view and record during day & night and also to capture the live video stream, store, retrieve and analyze video images with functional specifications specified in this document. | | | |
| 3 | External NL-SAS storage with RAID 5 configuration. | | | |
| 4 | Recording resolution FULL HD@ 30 FPS. | | | |
| 5 | Flagged data may be Approx 5% of recorded data . Flagged data can be retain for at least 90 days. | | | |
| G4- General | | | | |
| Ensure provision of latest version of licensed software and compatibility with 3rd party components / solutions for seamless integration. | | | | |
| H –Service Level Agreement (SLA) | | | | |
| As part of this RFP, Bidder shall ensure that redundancy and fault tolerance is considered at the components level in the actual deployment. | | | | |
| The following table details out service level agreement for service availability of components. | | | | |
| System availability (Up time): System availability shall be calculated as $[100\% - (\text{Downtime} / \text{Total time}) * 100]$. | | | | |
| | Parameter | SLA Target | Penalty | Measurement Tool/Method |
| | Servers, Cameras, networking equipments, networking & associated Software and Hardware mentioned in BOQ or any other peripherals components. | >= 99.5% uptime | · If uptime is Less than 99.5% and Greater than or equal to 98%. | Measured 24X7X365 (measured/ calculated monthly) |
| | | | Rs. 1000 / Hour Penalty Applicable. | |
| | | | · If uptime is Less than 98.0% and Greater than or equal to 95%. | |
| | | | Rs. 2000 / Hour Penalty Applicable. | |
| | | | · If uptime is Less than 95.0% | |
| | | | Rs. 5000 / Hour Penalty Applicable. | |
| Note: Penalty shall be deducted from the Security Deposit. | | | | |
| I-Command Control Centre | | | | |
| 1. | All camera feeds should be available for viewing by Police Personnel at any point of time. | | | |
| 2. | Command Control Center should have simultaneous viewing capability for about 10% of all cameras. | | | |
| 3. | The Command Center would be equipped with state-of-the-art equipment's to support monitoring and analysis of video feeds. | | | |
| 4. | For the purpose of common viewing of the cameras, video-walls/TV screens will be installed in the office. | | | |
| J-Training and Capacity Building | | | | |
| 1. | 5 days hands on experiences on Video Management System (VMS) and Analytics for 10 persons. | | | |
| 2. | Preparation of Training Material for operation, upkeep and security related subjects for technical, executive and supervisory staff. | | | |
| 3. | Preparation of Detailed Standard Operating Procedures (SOP) for police personal to be provided in consultation with head of security. | | | |
| K -Operations and Maintenance | | | | |
| 1. | Bidder shall also be responsible for the maintenance and management of entire systems, solutions, application deployed as part of this RFP for a period of 5 year from the Go-Live date in an efficient and effective manner | | | |
| 2. | Deploying manpower (minimum 2 persons) for solution maintenance and monitoring support which includes change request management, bug tracking and resolution, production | | | |

| Sno | Specification | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning No. & Model of the item) |
|-----|--|---------------------|----------------------------|--|
| | support, performing version and patch updates. | | | |
| 3. | Monitoring of all Equipment, display facilities, furnishing & finishing etc.which shall be monitoring the CCTV system. | | | |
| 4. | Annual technical support for all hardware and software components for the O & M period. | | | |
| 5. | Preventive, repair maintenance and replacement of hardware and software components as applicable under the warranty and AMC services during the contract period. | | | |
| 6. | Recurring refresher trainings for the users and Change Management activities. | | | |
| 7. | Preventive, repair maintenance and replacement of non-ICT components as applicable under the warranty and AMC services during the contract period. | | | |
| 8. | Overall maintenance of the CCTV solution and continuity of Operations as per SLAs. | | | |
| 9. | Submit Quarterly reports as desired by the department. | | | |
| 10. | Warranty - 5 years | | | |
| | L -Other Terms & Conditions | | | |
| 1. | Provisioning of required network bandwidth, Internet bandwidth and connectivity at various locations to connect with CCTV Solution shall be done by Bidder. | | | |
| 2. | The maintenance phase will be for a period of 5 (five) years after Go-Live. | | | |
| 3. | The successful bidder shall supply, commission and integrate the underlying infrastructure required for running the applications and managing the entire system. | | | |
| 4. | The bidder as the part of overall solution should consider latest & innovative technologies and propose the most optimal solution. The solution implemented for this project needs to be highly secure, considering that it is intended to handle sensitive data. | | | |
| 5. | Bidder shall be responsible for obtaining all permissions and approvals necessary to install the systems components as per the design. | | | |
| 6. | During project period, in the event of any damage to CCTV cameras due to accident or due to any other unforeseen circumstances, the bidder shall repair/replace the camera within 15 days of the said incident. Failure to comply with the time period shall attract penalty as mentioned in SLA. | | | |
| 7. | Shelf-life of Hardware should be min. 5 Years. | | | |
| 8. | Manufacturing Date of Hardware Products supplied should be in Year 2022 or later. | | | |
| 9. | The bidder should have successfully executed and implemented at least one supply order of similar CCTV Project worth of minimum 50% of the Quoted Bid Price, in Central or State Govt/ Govt Undertaking /PSU/ International organizations/Autonomous - Semi Autonomous bodies of Central/State Government in last four years(i.e., 2020-2021, 2021-2022 ,2022-2023 and 2023-2024). Copy of PO must be enclosed as proof. | | | |

| Sno | Specification | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|-------------|--|--|----------------------------|---|
| | camera for detection of number plates during night-time. | | | |
| 2 | License Plate Detection | | | |
| A | The System shall automatically detect the license plate in the captured video feed in real-time. | | | |
| B | The system shall perform OCR (optical character recognition) of the license plate characters (English alpha-numeric characters in standard fonts). | | | |
| C | The System shall store JPEG image of vehicle and license plate and enter the license plate number into Postgre SQL database along with date time stamp and site location details. | | | |
| D | System should be able to detect and recognize the English alpha numeric License plate in standard fonts and formats of all vehicles including cars, HCV, and LCV. | | | |
| E | The system should be able to process and read number plates of vehicles with speed of 180 km/hr and above. | | | |
| F | The system shall be robust to variation in License Plates in terms of font, size, contrast and colour and should work with good accuracy. | | | |
| G | The system should do processing locally on the LPU installed at the ANPR camera location/ junction, to avoid any time lag and performance issue due to network disconnection, bandwidth constraints, etc. | | | |
| 3 | Colour Detection | | | |
| A | The system shall detect the colour of all vehicles in the camera view during daytime and label them as per the predefined list of configured system colours. The system will store the colour information of each vehicle along with the license plate for each transaction in the database. | | | |
| B | The system shall have options to search historical records for post event analysis by the vehicle colour or the vehicle colour with license plate and date time combinations. | | | |
| 4 | Alert Generation | | | |
| A | The system should have option to input certain license plates according to the hot listed categories. | | | |
| B | The system should be able to generate automatic alarms to alert the control room personnel for further action, in the event of detection of any vehicle falling in the Hot listed categories. | | | |
| 5 | Vehicle Log | | | |
| A | The system shall enable easy and quick retrieval of snapshots, video and other data for post incident analysis and investigations. | | | |
| B | The system should provide advanced and smart searching facility of License Plates. There should be an option of searching number plates almost matching with the specific number entered (up to 1- and 2- character distance). | | | |
| 6 | Vehicle Make Detection Module | | | |
| A | System should be able to identify the make of the vehicle coming in the field of view of the camera with good accuracy. | | | |
| 7 | Vehicle Classification module (Optional) | | | |
| A | System should be able to classify the vehicle into LMV, HMV and 2-wheelers. | | | |
| 8 | Central Management | | | |
| A | The Central Management Module shall run on the ANPRS Central Server in control booth. It should be possible to view records and edit hotlists from the Central Server. | | | |
| B | The system should have reading accuracy of minimum 90% on vehicles and above which are visible by human eye for English alphanumeric number plates. | | | |
| C | The proposed system should have the capability to transfer the data to Central Command Centre through proper encryption in real time. | | | |
| D | System Should have capability to generate alerts / alarm If any vehicle changes its designated route. | | | |
| 1.14 | Storage | | | |
| S.n | Parameter | Specification | | |
| 1 | Form Factor | Rack 2U or higher | | |
| 2 | Controller | The proposed NAS should be configured with minimum single controller/Processor. | | |
| 3 | Processor | Intel® Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor or better | | |
| 4 | Cache/Memory | NAS must be with minimum 64 GB ECC RAM and upgrade up to 128 GB or higher. | | |
| 5 | Internal storage capacity | 1. Support for SAS/SATAIII 3.5" HDD or SSD. 2. Offered NAS solution must support at-least 60 bay 7.2K RPM HDD slot in RAID 5. | | |
| 6 | Front/Back-end ports | 1. Minimum 2 x 1G Ethernet Ports. 2. Minimum 2 x 10G SFP+ Ports 3. Two or more USB 3.0 Ports. | | |
| 7 | RAID | Must Support for RAID Levels: 0, 1, 5, 6 | | |
| 8 | Authentication Support | NAS must support Windows AD authentication. | | |

| Sno | Specification | Compliance in value | Weather Compliance Yes/ No | Actual proposed Specification (mentioning Make & Model of the item) |
|---------------------------------|---|---|----------------------------|---|
| 9 | Network Client Type Support | Windows and Linux. | | |
| 10 | Management | Must support GUI. | | |
| 11 | Cables, Driver's connectors and accessories | Must come with require accessories, cable and connector from day one. | | |
| 12 | Power Supply | Dual Redundant Hot-Swappable Power Supplies | | |
| 1.15 | Air Conditioner (AC) | | | |
| 1 | Compressor | Rotary or better | | |
| 2 | Dehumidification | Yes | | |
| 3 | Remote Control | Yes | | |
| 4 | Indoor Temperature Indicator | Yes | | |
| 5 | Turbo Mode or equivalent | Yes | | |
| 6 | Auto Air Swing | Yes | | |
| 7 | Active Carbon Filter | Yes | | |
| 8 | Sleep Mode | Yes | | |
| 9 | Capacity | 2 Ton | | |
| 10 | BEE Rating | 5 star | | |
| 11 | AC Type | Split | | |
| 12 | Binding Type | Copper | | |
| 13 | Warranty | 5 years or more | | |
| 1.16 | Television (TV) 43 Inch | | | |
| 1 | Display Size | 42 inch or above | | |
| 2 | Native Resolution | 3840 x 2160 (UHD) 4k or better | | |
| 3 | Brightness | Minimum 300 cd/m2 or above | | |
| 4 | Contrast Ratio (Native) | Minimum 1100:1 or better | | |
| 5 | Viewing Angle | 178 * 178 | | |
| 6 | Refresh Rate | 60 Hz and above | | |
| 7 | Input Ports | HDMI-2, USB 2.0, RJ45-1 | | |
| 8 | Output Ports | Digital audio out/ Headphone out | | |
| 9 | Wi-Fi | Built-in Wifi required | | |
| 10 | Audio | 20W (10W * 2) | | |
| 11 | Certificates | UL/CE/CB & BIS, RoHS | | |
| 12 | Accessories | Wall mount, Table stand, Remote and standard cables with complete Installation | | |
| 13 | OEM Warranty | 3 Years | | |
| 14 | Operating System in case of smart TV | Web OS/ Andriod / Tizen | | |
| 15 | OEM Manufacturing date | OEM Manufacturing 2022 or better | | |
| Local Storage | | | | |
| | SD card | Camera shall be provided with SD card of 32 GB. In the event of failure of connectivity to the central server the camera shall automatically record video locally on the SD card. | | |
| | | After the connectivity is restored these SD card based recordings shall be automatically merged with the server recording. | | |
| G-Functional requirement | | | | |
| G 1-Video analytics | | | | |
| 1 | Surveillance system shall have the capability to deploy intelligent video analytics software on any of the selected cameras. | | | |
| 2 | This software shall have the capability to provide various alarms & triggers. | | | |
| 3 | The software shall essentially evolve to automate the suspect activity capture and escalation; eliminate the need of human observation of video on a 24x7 basis. | | | |
| 4 | Analytics software shall bring significant benefit to review the incidences and look for suspicious activity in both live video feeds and recorded footages. | | | |
| 5 | The software shall have filters to distinguish between humans, animals, vehicles or objects. | | | |
| 6 | The video analytics software shall be implemented at the server level in central datacenter compatible with windows server OS or Linux for highest performance and reliability. | | | |
| 7 | Various video analytics that shall be offered on identified cameras are:- | | | |
| | a) | Loitering /Vandalism around area under observation | | |
| | b) | Video Loss Alarm | | |
| | c) | People Head Counting or Crowd Recognition | | |
| | d) | Camera Tampering/Camera ON/OFF video alarms | | |
| | e) | Image Masking- Privacy Protection Video Tracking of Person | | |
| | f) | Video Tracking of Person/Object in field of view | | |
| | g) | Left/Abandoned Item Detection and Removed Item Detection | | |

POLICE HEAD QUARTER, MADHYA PRADESH, BHOPAL**Tender application form**

(To be enclosed with Technical Bid)

(To be filled up by the tenderer)

| | | |
|----|--|--|
| 1 | Name & Full Address of the firm: | |
| 2 | Registered Office with Address (Copy of registration certificate of firm may be enclosed) | |
| 3 | Income Tax PAN Number | |
| 4 | GST Number and Certificate (Last Financial Year) | |
| 5 | Whether proprietorship / limited company or Pvt. Ltd. or partnership | |
| 6 | If Single Proprietor, Name & Address of the Proprietor. | |
| 7 | If Partnership Firm, Name & Address of the Partner. | |
| 8 | If Private limited or Public company, then name & Address of directors. | |
| 9 | Whether you have any shop or establishment in M.P. If so detailed Addresses of the same. | |
| 10 | Name & Addresses of the persons who will face represent the firm while dealing with the Police Head Quarters. (For Signing documentation and demonstration will be authorize by the OEM or Bidder) | |
| 11 | Turnover for the Last Three Financial Years. 2022-23 2023-24 2024-25 (Attach only CA certificate with UDIN No.) | |
| 12 | Supplies to Govt. Department in Last Five Financial Year as per GTC | |

SIGNATURE OF THE TENDERER WITH SEAL

Following Declaration duly filled in must be enclosed with the “Technical Bid” as given below :-

**::DECLARATION OF ACCEPTANCE OF TENDER TERMS
&CONDITIONS ::**

I, (Name of M.D./ Proprietor of firm) _____ son of Sri
_____ of M/s _____
(Name of firm and full Address) have read all the Terms and Conditions of the tender given
above. These are acceptable to me. Earnest Money Paid Online of Rs _____
_____ (In words)

I _____ (Name of M.D./Proprietor of firm) son of Shri
_____ of M/s _____ (Name of
firm and full Address) **certify that** we are registered and experienced firm for this work and
manufacturing/ trading since _____ (date). We also certify that we are not black
listed by any state or central Govt./University/Bank/Corporation/Autonomous institute etc.
Each page of tender documents is duly signed with seal by us. We undertake to adhere the
ethical commitment as required in this tender mandated by the law.

Place : _____

Date : _____

Signature _____

Name _____

& Seal of the Tenderer (Supplier)

(On the Letterhead of the Participant bidder firm/ Company)

Undertaking of Registration Numbers

I _____ S/o Shri _____ Resident of

Being Director / Proprietor / Partner of M/S _____ GST
Registration No. is _____ Income Tax PAN No. is _____ Hereby give
consent to the office of Assistant Inspector General of Police,(General) Special Branch,Police
Headquarter Bhopal to deduct from our Bills whatever Amount is payable by us on account
of the necessary Tax dues .

Place :- _____

Date :- _____

Signature:- _____

Name:- _____

Post :- _____

Seal :- _____

Signature of Bidder

TENDER FORM**(On the Letterhead of the OEM)****(To be submitted in Envelop / Part - A, must be duly sealed, signed and uploaded)****AUTHORITY LETTER FROM ORIGINAL EQUIPMENT MANUFACTURER**

Date

To,

A.I.G (General)
SB PHQ Bhopal, MP

Ref. : Tender No.

Dear Sir,

I/We [manufacturer] hereby certify that M/s [tenderer] is an authorized..... [relationship] of [manufacturer] and they are authorized to represent[manufacturer] in submitting their bid for [product & services] and conclude the contract with you.

I/We am/are the Original Equipment Manufacturer in respect of the products listed below.

| Sr. No. | Product Name | Remarks |
|---------|--------------|---------|
| 1. | | |
| 2. | | |
| 3. | | |

We certify that the Equipment/Furniture provided by us are not end of life products and the maintenance support for the proposed products will be provided till the warranty period.

We [Manufacturer] are confident of M/s [tenderer's] ability to represent us and provide full support till the warranty period.

We [manufacturer] have authorized to quote for this tender .

Signature of Authorized Person

Name

Designation

Seal

Date :

Place :

TENDER FORM

(On the Letterhead of the Participant bidder firm/ Company)
(To be submitted in Envelop / Part A, must be duly sealed, signed and
uploaded)

**COMMITMENT LETTER FOR SUPPORT FROM ORIGINAL
EQUIPMENT MANUFACTURER**

Date

To,

A.I.G (General)
SB PHQ Bhopal, MP

Ref : Tender No.:

Dear Sir,

I / We hereby commit & confirm that I / we will provide onsite, free of cost service, maintenance and technical support, will keep sufficient stock of spare parts along with spare during Warranty period defined in tender document. I / We will provide onsite support through local office / support centre / arrangement in Madhya Pradesh and keep it operational till the duration of warranty. The address & contact number of the local office / support centre / arrangement is as mentioned below:

Signature of Authorized Person

Name

Designation

Seal

Date :

Place :

TENDER ACCEPTANCE LETTER
(To be given on Company Letter Head)

Date:

To,

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: _____

Name of Tender / Work: -

Dear Sir,

1. I / We have downloaded / obtained the tender document(s) for the above mentioned 'Tender/Work' from the web site(s) namely:

as per your advertisement, given in the above mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. _____ to _____ (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/organization too have also been taken into consideration, while submitting this acceptance letter.

4. I / We hereby unconditionally accept the tender conditions of above mentioned tender document(s) / corrigendum(s) in its totality / entirety.

5. I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.

6. I / We certify that all information furnished by the our Firm is true & correct and in the event that the information is found to be incorrect/untrue or found violated, then your department/ organization shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract , without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,
 (Signature of the Bidder, with Official Seal)

PRICE BID UNDERTAKING

From: (Full name and address of the Bidder) _____

To,

Dear Sir/Madam,

1. I submit the Price Bid for _____ and related activities as envisaged in the Bid document.
2. I have thoroughly examined and understood all the terms and conditions as contained in the Bid document, and agree to abide by them.
3. I offer to work at the rates as indicated in the price Bid, inclusive of all applicable taxes except Service Tax.

Yours Faithfully,
Signature of authorized
Representative, with official seal

**BANK GUARANTEE PROFORMA FOR FURNISHING PERFORMANCE
SECURITY**

1. In consideration for the President of India (hereinafter called "the Government") having agreed to exempt.....(hereinafter called "the said Contractor(s)" from the demand, under the terms and conditions of an Agreement dated.....made between.....and.... of Performance Security for the due fulfillment of the said Contractor(s) of the terms and conditions contained in the said Agreement, on production of Bank Guarantee for Rupees..... (Rupees.....(indicated the name of the Bank) at the request of.....contractor(s) do hereby undertake today to the Government an amount not exceeding Rupees..... against any loss or damage caused to or suffered would be caused to or suffered by the Government by reason of any breach of the said Contractor(s) of any of the terms or conditions contained in the said Agreement.

2. We.....do hereby undertake to pay the amount due and payable under this Guarantee without any demur, merely on a demand from the Government stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Government by reason of breach by the said contractor(s) of any of the terms or conditions contained in the said Agreement or by reason of the contractor(s)'s failure to perform the said Agreement. 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 an amount not exceeding Rupees....

3. We undertake to pay the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor(s)/supplier(s) in any suit or proceeding pending before any Court or Tribunal relating thereto 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)/supplier(s) shall have no claim against us for making such payment.

4. We,.....further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said Agreement have been fully paid and its claim satisfied or discharged or till.....that the terms and conditions of the said Agreement

e- have been fully and properly carried out by the said Contractor(s) and accordingly discharges this Guarantee. Unless a demand or claim under this Guarantee is made on us in writing on or before the... guarantee thereafter.

5. We,.....further agree with the Government that the Government 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 Agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the Government or any indulgence by the Government to the said Contractor(s) 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. Notwithstanding anything contained herein above our liability under the guarantee is restricted to Rs. _____ and shall remain in force until _____. Unless a claim or suit under this guarantee is filed with us on or before _____. ALL OUR RIGHTS UNDER THE

GUARANTEE SHALL BE FORFEITED and the Bank shall be relieved and discharged from all liabilities therein.

7. This Guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s)/supplier(s).

8. We,lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Government in writing.

Dated the..... of.....2025
for..... (indicate the name of Bank)
Signature.....
Name of the Officer..... (in Block
Capitals)
Designation and Code No.
Name of the Bank and Branch.....

Proforma for Financial Bid

| No | Name of Items | Quantity | Make/ Model | GST % | Unit Rate including all taxes etc. | Total Cost including all taxes etc. |
|----|---------------|----------|----------------|-------|--|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| | | | | | | |

Note:- L1 will be decided Per Unit /Packet/Set/Nos Rate Including all Taxes, etc.

Special Branch, Madhya Pradesh Bhopal
Specification of CCTV Surveillance System for Raj Bhawan

| |
|--|
| A- Scope of Work |
| 1. Madhya Pradesh Special Branch is in the process of provisioning of CCTV surveillance system at "Raj Bhawan Bhopal". |
| 2. Madhya Pradesh Special Branch intend to select System Integrators (SIs) for Supply, Installation, Testing, Commissioning, Migration, Operations and Management of CCTV surveillance system, on premises infrastructure including On-site manpower for five years at Raj Bhawan with a definite Service Level Agreement (SLA). |
| 3. The selected bidder shall ensure the successful implementation of the proposed solutions as well as provide capacity building support. |
| 4. Any functionality not expressly stated in this document but necessary to meet the needs of the successful operations of the system shall essentially be under the scope of bidder and for that no extra charges shall be admissible. |
| 5. Bidder shall implement and deliver the systems and components which are described in this RFP. |
| <u>B- Objective</u> |
| 1. VIP Security and Access Control |
| 2. Prevention of Crime |
| 3. Analytics for Command and Control Centre |
| <u>C-Site Survey</u> |
| 1. Bidders will be responsible for site survey to identify and analyse the exact situation of the site. |
| 2. Bidders should analyse the site requirement, its present status, applications hosting plan, the existing infrastructure and any other relevant details before designing the CCTV solution. |
| 3. Before doing site survey permission shall be obtained from the user agency. |
| <u>D- Supply & Installation</u> |
| Bidder shall use industry leading practices during the implementation w.r.t positioning and mounting the cameras, poles and junction boxes. |
| Check-points that need to be adhered to by the Bidder while installing / commissioning cameras are as follows:- |
| 1. Ensure surveillance objective is met while positioning the camera such that the required field of view is being captured as finalized in field survey. |
| 2. Ensure camera is protected from the on-field challenges of weather, physical damage and theft. |
| 3. Make proper adjustments to have the best possible image / video captured. |
| 4. Ensure that the pole is well placed for vibration resistance adhering to the road safety norms. |
| 5. Collusion preventive barriers around the junction box & pole foundation in case it's installed in collision prone place. |
| 6. Appropriate branding or colour coding (Police/Authority Branding) of poles and junction boxes, to warn mischief mongers against tampering with the equipment at the junction. |
| 7. Bidder shall arrange power supply for the proposed solution at all desired locations. |
| 8. Bidder shall comply with lightning-protection and anti -interference measures for system structure and equipment's. |
| 9. Earthing should be done for the entire power system. |
| 10. Bidder shall provide the Junction Boxes, posts and cantilever to mount the field sensors like the cameras, active network components, controller and power backup (UPS) at all field locations, as per the specifications. |
| 11. Bidder shall provide standardized cabling for all devices and subsystems. |

12. Bidder shall ensure the installation of all necessary cables and connectors between the field sensors /devices assembly, outstation junction box, for pole mounted field sensors/devices the cables shall be routed down the inside of the pole and through underground duct to the outstation cabinet.
13. All cables shall be clearly labeled with indelible indications that can clearly be identified by maintenance personnel. The proposed cables shall meet the valid directives and standards.
14. Cabling must be carried out per relevant BIS standards. All cabling shall be documented in a cable plan by Bidder.
15. The Bidder shall be responsible to provide networking solution and may assume that data rate of 5 Mbps per camera required at various locations.
16. Bidder will be required and should do component sizing accordingly to connect all locations.
17. Surge Protection devices shall be provided for outdoor equipment like cameras, racks, switches on both side of network, power source at Field rack, switch and control room racks, Ethernet+PoE for junction equipment's and Control room equipment's.

E-BOQ

The BOQ mentioned below are indicative and minimal. Bidders will be responsible for the site survey before proposing CCTV solution. The exact quantity and requirement shall be proposed as part of the technical bid of the Bidder.

| S.n | Item | Quantity |
|------------|--|---|
| 1 | 4MP IR ANPR Camera with License and Software | 10 |
| 2 | 4MP IR Bullet Outdoor Network Camera | 261 |
| 3 | 4 MP IR PTZ Camera | 5 |
| 4 | Video management system | 1 |
| 5 | Video analytics license @ cameras (Bullet/PTZ) | 30 |
| 6 | Network switch L2 @ Control room | 1 |
| 7 | Outdoor industrial grade 8 port accessories | As per site requirement |
| 8 | Other network switch & accessories (If required) | As per site requirement |
| 9 | Computer & storage equipment & accessories | As per site requirement |
| 10 | Network equipments & Accessories | As per site requirement |
| 11 | Junction Box | As per site requirement |
| 12 | Surge protection device | As per site requirement |
| 13 | Outdoor armored rated cat 6 cable | As per site requirement |
| 14 | Double jacket cat 6 cable for indoor | As per site requirement |
| 15 | Optical fibre cable (If required) | As per site requirement |
| 16 | Online UPS (1 Hr. backup) for all PTZ, Dome and Bullet cameras | As per site requirement |
| 17 | Online UPS (1 Hr. backup) for control room (N+1) redundant. | 1 |
| 18 | Video wall/4K Monitor 43" bezel less for monitoring with mounting accessories. | 1 Set of 86 inch Videowall/ 4 no. (4k monitor 43" Bezel less for monitor with mounting accessories) |
| 19 | Desktop for video wall/4K Monitor 43" | As per site requirement |
| 20 | Other software's (If required) | As per site requirement |
| 21 | Installation and civil work with poles and masts and other required accessories | As per site requirement |
| 22 | Network rack with furniture for all equipments at control room remote locations with complete electric fitting | As per site requirement |
| 23 | Air conditioner 2 ton | 1 |
| 24 | Network & power cables & accessories | As per site requirement |

| Bids should be submitted as per the Preferred OEM table for each item mentioned below- | | |
|--|--|---|
| S.n. | Component/Item | OEM List |
| 1 | Electrical Cables & Accessories | Anchor, Havells, Finolex, RR Kabel, Polycab |
| 2 | Network Cables & Accessories | RR Kabel, Havells, Dlink, HPE, Dell, Netgear, Cisco |
| 3 | Network Equipments & Accessories like Switch etc | Belden, Cisco, Arista, Juniper, Dell, HPE |
| 4 | AC | LG/Samsung/Voltas/Carrier/Daikin/Bluestar/O-General |
| 5 | Surge protection device | Citel, MTL, DEHN |
| 6 | Storage solution | Dell, HPE, Cisco |
| 7 | Workstation | HPE, Dell, Lenovo |
| 8 | TV | LG, Samsung, Sony |
| 9 | Videowall | Delta, Barco, LG, Samsung |
| <p>The OEM & vendors are requested to forward information of the product (Make & Model) which they can offer and also forward correct specification of there system against each parameter along with complied or not complied remarks.</p> | | |

F - Technical Specifications

The specifications indicated below are minimal specifications and the vendor may suggest higher /better / latest specifications, so as to insure the optimal performance of the system.

4MP IR Bullet Outdoor Network Camera/ANPR Camera

| Parameter | Specification |
|--|--|
| Image sensor & Resolution | 1/3" or better CMOS Progressive Scan & Minimum (4 MP) or better |
| Electronic Shutter speed | 1/3 to 1 / 10,000 s or better |
| Min illumination/ light sensitivity (Colour) | Minimum 0.5 lux (30 IRE, F 1.2) or better |
| Min illumination/ light sensitivity (B/W) | Minimum 0.2 lux (30 IRE, F 1.2) or better |
| Wide Dynamic Range | Minimum 85 Db or better |
| Backlight Compensation | ON/OFF |
| IRIS Control | Automatic |
| Focus | Autofocus |
| Automatic Gain Control | Auto / Manual |
| Colour, Brightness, Contrast | functionality Required |
| Frame Rate | 30 FPS for 4MP at H.264 Compression or better |
| Varifocal Lens Bullet | 2.7-13 FPS for 4MP at H.264 Compression or better |
| Varifocal Lens ANPR | IP 67 |
| Video | |
| Day and Night functionality | Automatic, Colour, Mono. Should automatically switch to night vision mode by sensing the illumination level. |
| IR illuminator | Illuminator may be Internal or external & visibility should be at least 25 m |
| Video Resolution | Minimum 4 MP |
| Video Streams | Individually configurable 02 video streams (H.264, MJPEG) or better |
| Intelligent Video | Motion detection, Tampering Alert |
| Audio | |

| | |
|---|---|
| Audio support | Required |
| Audio Compression | Minimum G.711 or better |
| Network & Interface | |
| Interface | RJ-45 for 10/100 base-T Ethernet |
| Upgrade | Through web browser , online, firmware upgrade |
| Network Protocols support | IPv6, TCP/IP, HTTP, , DHCP, UDP, DNS, SMTP, RTP, RTSP, SNMP protocols/Should meet all functional requirement of the project |
| Network disconnection Alarm | Required |
| Compliance | ONVIF Profile S or better |
| Security | |
| Password Protection | Required |
| HTTPS encryption | Required |
| IEEE 802.1X | Required |
| General | |
| Operational temperature °C and humidity | Should be able to withstand Bhopal weather (0 to 50 degree Celsius) |
| IP rating | IP67 |
| Certifications | UL and BIS and CE/ EN/ FCC |
| Power | PoE / PoE+ and 12VDC/24VDC/230VAC Vendor has to supply suitable power for the cameras. |
| Local Storage/SD card | Camera shall be provided with SD card of 32 GB. In the event of failure of connectivity to the central server the camera shall automatically record video locally on the SD card. After the connectivity is restored these SD card based recordings shall be automatically merged with the server recording. |
| 4 MP IR PTZ Camera | |
| Parameter | Specification |
| Image sensor & Resolution | 1 / 2.8" or better CMOS Progressive Scan and 4 mega pixel |
| Focal Length | 3.5 to 94 mm or better |
| Zoom | 20 x Optical or better |
| Electronic Shutter | 1/1 to 1 / 10,000 s or better |
| Min illumination/ light sensitivity(Colour) | 0.5 lux (30 IRE, F 1.6) or better |
| Min illumination/ light sensitivity (B/W) | 0.2 lux (30 IRE, F 1.6) or better |
| Wide Dynamic Range | Minimum 85 Db or better |
| Backlight Compensation | ON/OFF |
| IRIS Control | Automatic |
| Focus | Autofocus |
| Automatic Gain Control | Auto / Manual |
| Frame Rate | 30 FPS for 4MP at H.264 Compression or better |
| Video | |
| Day and Night functionality | Automatic, Colour, Mono. Should automatically switch to night vision mode by sensing the illumination level |
| Video Resolution | 4 Mega pixel or better |
| IR illuminator | Internal / External Illuminator & visibility should be at least 50 m: IR Illuminator should cover 360 degree area. |

| | | |
|---------------------------------------|---|---|
| Video Streams | Individually configurable 02 video streams (H.264, MJPEG); | |
| Intelligent Video | Motion detection, Tampering alert | |
| Electronic Image Stabilization | Required | |
| PTZ Function | | |
| PAN TILT Range | 360° continuous pan & 90° tilt range | |
| PAN TILT Speed | 0.5° to 150°/sec for panning & 0.5° to 100°/sec for tilting & Up to 300°/s for Preset speed. | |
| Presets | Minimum 150 Preset Points | |
| Preset Tour & Pattern | Required | |
| Privacy Mask | 08 Zones or better | |
| Compression | | |
| MJPEG | Required | |
| H.264 | Required | |
| Audio | | |
| Audio support | Required | |
| Audio Compression | G.711 or better | |
| Network & Interface | | |
| Interface | RJ-45 for 10/100 base-T Ethernet | |
| Upgrade | Through web browser , online, firmware upgrade | |
| Network Protocols support | TCP/IP, HTTP, DHCP, UDP, DNS, SMTP, RTP, RTSP, SNMP protocols | |
| Alarm Event | Events / alerts send via FTP, HTTP, email, Pre-Post alarm video buffering. | |
| Network disconnection Alarm | Required | |
| Compliance | ONVIF Profile S or higher | |
| Security | | |
| Password Protection | Required | |
| HTTPS encryption | Required | |
| IEEE 802.1X | Required | |
| General | | |
| Operational temperature °C & Humidity | Should withstand Bhopal weather (0 to 50 degree Celsius) | |
| IP rating | IP67 | |
| Power | PoE / PoE+ and 12VDC/24VDC/ 230VAC Vendor has to supply suitable power for the cameras. | |
| Certifications | UL and BIS and CE/EN/FCC | |
| Local Storage/SD card | Camera shall be provided with SD card of 32 GB. In the event of failure of connectivity to the central server the camera shall automatically record video locally on the SD card. | |
| | After the connectivity is restored these SD card based recordings shall be automatically merged with the server recording. | |
| 1.1 | Server | |
| S.n | Parameter | Min. Specification |
| 1 | Processor | 2 x Intel Xeon latest generation processors. 64-bit x86 processor fully binary compatible with 64/32-bit applications. Cores: 2 x 16-core (minimum) with a minimum clock rate of 2.4 GHz. |

| | | |
|---|--------------------|---|
| 2 | Memory | Minimum 64GB of the latest DDR4 memory using minimum 16GB DIMMs or higher. Advanced ECC with multi-bit error protection. The memory should have native capability of identifying and reporting the densities of the memory installed in the server. |
| 3 | HDD Controller | 12 Gbps SAS/NVMe RAID controller supporting RAID 0, 1, 5, and 6 with a minimum of 2GB battery-backed cache. |
| 4 | HDD | 2 x 1.92TB SSD hot-swappable or higher. |
| 5 | Network Controller | Network controller: minimum 4 x 1Gbps ports and 2 x 10/25Gbps ports with 10Gbps transceivers. |
| 6 | Bays | Minimum 8 hot-swappable drive bays. |
| 7 | System Chassis | Rack mount, 2U (maximum), redundant hot-swappable power supply with platinum efficiency. |
| 8 | OS Certificate | Certification for the latest server versions of Windows and Linux. |
| 9 | IDC Ranking | OEM should be ranked within the top 3 as per the IDC report for any one of the previous four quarters in India for servers. |

1.2 Workstation

| S.n | Parameter | Min. Specification |
|-----|---------------------------------------|--|
| 1 | Processor Make | Intel |
| 2 | Processor Generation | Intel Core i7, 10th Generation or higher |
| 3 | Number of Cores | 8 or above |
| 4 | Cache (MB) | 16 or above |
| 5 | Processor base Frequency (GHz) | 2.90 GHz or above |
| 6 | Motherboard | Intel / OEM |
| 7 | Type of RAM | DDR4 or better |
| 8 | RAM Size (GB) | 8 GB or above |
| 9 | RAM Speed (MHz) | DDR4-2666 or better |
| 10 | RAM Expandability up to | 64 GB or above |
| 11 | Type of Hard Disk Drive | HDD / SSD or Both |
| 12 | Capacity of HDD (GB) | (a) 512 SSD / 1000 SSD or (b) 512 SSD + 1TB HDD |
| 13 | Operating System (Factory Pre-Loaded) | Windows 11 Professional 64 bit or latest |
| 14 | Input Devices | Standard USB Keyboard - Wired |
| 15 | Mouse | Optical USB Mouse - Wired |
| 16 | Ports | Four or more |
| 17 | HDMI /VGA or both | Yes |
| 18 | Other | Microphone, Stereo headphone and other standard port |
| 19 | Networking | Ethernet - Yes - 10/100/1000 |
| 20 | Display | Diagonal Viewing Size (Inch) - 15.6 Inches or above. |
| 21 | Resolution | 1920 x 1080 FHD or above |
| 22 | Input Devices | Standard USB Keyboard |
| 23 | Mouse | Optical USB Mouse |
| 24 | Anti-Virus | To be included with 5 years licence |
| 25 | BEE / Energy Star for the given Model | Yes |
| 26 | Certifications | (FCC/CE/CB), BIS and RoHS |
| 27 | MS Office | Factory preloaded MS Office 2021 (Home and business life |

| | | |
|------------|---|--|
| | | time) |
| 28 | Warranty | On Site OEM Warranty (Year) - 5 Years comprehensive warranty |
| 1.3 | VMS Software | |
| 1 | The system should be easy to install, learn, operate and manage: | |
| | The VMS must have rich user interface that provides one-click access, drag-drop, menu, customizable GUI etc. to enhance operational efficiency in daily tasks and maintain. The VMS shall have ability to respond fast & shall be applicable to all processes, functions, features, and screens of a video management system. | |
| 2 | Simple, clear documentation including User Guides (how to use the product) and Technical Reference Manuals (quick reference on functions and procedures) shall be submitted | |
| 3 | Scalability: The proposed video management system shall be able to support any no. of CCTV Cameras so as to accommodate any future expansion. System shall support viewing of video from multiple locations and by multiple users. The VMS shall support 500 or more cameras. Well documented Software Development Kit (SDK): The SDK should include a rich, easy-to-use Application Programming Interface (API) support if required. Input and output support: The VMS shall have ability to receive and support recording based on inputs or alarms. Event management: The VMS shall have ability to enforce custom settings for event detection, alarm notification, recording, input/out (I/O) control, and other features in response to events. The alarm management module shall support graphical displays with interactive icons to display the status of the cameras & other inputs. Support for standard protocols: The VMS shall have ability to maintain independence from any one vendor & shall support open standard protocol i.e. ONVIF profile S | |
| 4 | Smooth software upgrade path for support of new devices, drivers and operating systems. System should be able to implement software upgrades without requiring all hardware components to be reconfigured. System should provide Database Server Hot Redundancy from day one, Camera Server Hot Redundancy, and automatic fault tolerance for robust system uptime and Distributed database and video storage. | |
| 5 | On screen help and instructions: The system should provide help and assistance through help guide on same station. | |
| 6 | User management with user roles & privileges right to view, acknowledge alarms shall be available | |
| 7 | Centrally controlled user management - Users, roles, rules and privileges should be stored on the central VMS server allowing any authorized user to log into any workstation. | |
| 8 | Recording Server: | |
| | · The System shall not restrict the number of recording servers | |
| | · Shall support dual streaming | |
| | · Shall allow each camera to be viewed independently by client viewer. | |
| | · Recording from connected cameras shall be stored in NAS/SAN | |
| | · Shall support multiple storage form | |
| | · Shall support recording in all resolution at desired FPS | |
| | · Shall support video cum audio recording | |
| 9 | The VMS shall have ability to configure access privileges and other parameters for all users. | |
| 10 | Support for event based or schedule-based recordings to optimize bandwidth and storage | |
| 11 | Customizable recording retention period for specific camera. | |
| 12 | Remote Users: Should support at least 10 remote users via network/web browser/client software | |
| 13 | Wizard driven installation of software updates for VMS server and client machines | |
| 14 | Support and configuration options for virtual matrix. | |
| 15 | Copy or Clone option to install new device based on already configured device. | |
| 16 | The VMS shall have ability to easily install, configure, modify, search and remove surveillance devices with automatic discovery of IP devices using external tool or in built options. | |

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| 17 | Option to install other devices like Analog cameras, encoders, microphone-speakers. |
| 18 | The VMS shall have ability to logically group devices based on installation location & device type. |
| 19 | The VMS shall have ability to search and view device(s) based on standard criteria like Camera ID/ Name, Location, Group, etc |
| 20 | The VMS shall have ability to enforce access privileges (View /Add /Edit/ Remove) to device(s). |
| 21 | The VMS shall have ability to draw and configure map of surveillance facility, choose background images, User-definable symbols (for deployed devices)and programmable functions, e.g., hyperlinks, controlling video feed, initialling alarms etc. |
| 22 | Remote firmware updates notifications and wizard driven installation shall be part of camera feature. |
| 23 | Provision for independent storage settings for individual camera feeds. |
| 24 | The VMS shall have ability to configure multiple streams with different quality parameters e.g. Codec (H.264, MPEG, JPEG) , resolution, frame & bit rate etc. |
| 25 | Support for full duplex audio |
| 26 | a) The VMS shall have ability to create and assign pre-configured views/layouts for monitoring including features like: |
| | b) The VMS shall support Sequencing in Views, whereby the pre-sets of PTZ cameras as well as fixed cameras are cycled on a timed basis, within a single view or within the view port of a multiple camera view. |
| | c) Linking images, maps a view, |
| | d) The VMS shall support sequence views. A sequence view consists of a single camera view, which can be cycled on a time basis. Pan-tilt-zoom cameras, which support pre-set positions, can have these pre-sets cycled on a time basis. In this way an operator can view a variety of pre-sets on a series of PTZ cameras. Fixed cameras can also be included in the sequence and cycled accordingly. |
| | e) Special views for widescreen monitors, |
| | f) Updating a view only on motion detection, |
| | g) Granting or revoking permission to use the view etc. |
| 27 | Setup Virtual matrix on operator workstation monitor |
| 28 | Basic recording options [Full, Scheduled recoding, Motion detection recording, external/internal hardware or software events / trigger-based recording] |
| 29 | Advanced recordings options [Video only, Video plus Audio, Retention rules, Archive/back-up rules, and storage limits report set. |
| 30 | The VMS shall have ability to configure, store and track both pre- and post-event recordings. The pre-post event time should be configurable. |
| 31 | PTZ configuration including pre-sets, patterns, patrolling, masking, priority and permissions should be possible from camera web page |
| 32 | The VMS shall have ability to support operations from Web/IE client, Windows Client /Mobile devices etc. Popup display on the screen in case of any event/alarm/threshold etc. |
| 33 | Multiple monitor support: The system should allow connecting minimum 2 or more as per proposed Solution multiple monitors on single client workstation (loaded with suitable graphics card) and display different contents on each of the connected monitor. |
| 34 | All panes / tiles should indicate mode (live or recoded), source (camera name/location) and date/time and applied quality information (FPS, CODEC). A matrix view should support minimum 2x2, 3x3, 4x4 on small monitors and 9x9 formats on video wall and any number of multiple screen divisions. |
| 35 | PTZ controls: When PTZ is deployed and enabled, system should offer a separate control panel for PTZ operations. The control panel should include list of pre-sets, patterns, tours, eight directional & home positions and zoom-in & zoom-out buttons. A dedicated joystick can also be used for PTZ operations. |

| | |
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| 36 | PC keyboard shortcut keys: Along with menu-driven interface, a VMS should also support shortcut keys to help operators quickly switch between different cameras/matrix views. |
| 37 | Snapshots: System should allow creating a still image from live or recorded feed and storing it into a workstation. |
| 38 | Replay facility with timeline control to display and play back recorded video for one or more cameras. Playback shall be possible on 1 or more cameras simultaneously for all cameras currently displayed in the Video Workspace. |
| 39 | The VMS shall have ability to bookmark / add-to-favorites in both live and playback modes. Bookmarks shall be created, search, removed by the owner. |
| 40 | Digital zoom to enlarge portion of an image to provide superior zooming capability. |
| 41 | The VMS shall have ability to Start/Stop Recording on demand (manually). |
| 42 | Option to view surrounding cameras: The system should enable operators to configure camera feed and based on group/subgroup details, its surrounding cameras should be automatically displayed on separate panes based on alarms. |
| 43 | Evidence export feature: The system should allow users to export audio/video evidence in open format for internal investigation or to share authentic proof to public authorities and outside agencies. Alternatively, the bidder may provide the required player/software to run the exported video file if the VMS does not support to export in avi or another standard format. |
| 44 | The VMS shall provide an advanced search of recorded video. The search shall be based on recording time, camera and recording details. Wildcards shall be accepted for the Point ID, description, area, priority and value for alarm/event activated recordings. Smart (motion) Search: The feature should enable users to select area of interest on any given view of camera recording, and search for motion incidents within that area |
| 45 | The VMS should have onscreen process guidance/help menu & instruction |
| 46 | The system should offer following playback controls |
| | · Play/Pause |
| | · Forward playback |
| | · Reverse playback |
| | · Frame forward |
| | · Frame rewind |
| 47 | Evidence Printing: Option to create and print a small surveillance report that includes image(s) and comments about recorded incident from command control system. |
| 48 | The system should enable users to view different graphics to preconfigured displays. |
| 49 | The system/camera should offer options to set Brightness, Contrast, Sharpness etc. |
| 50 | The VMS/VA system should have in-built, configurable, basic motion detection analytic engine that efficiently |
| | · Detects motion |
| | · Virtual line |
| | · Auto tracking / person annotations |
| | The system should have event/alarm management module that allows generating, distributing, storing, tracking and reporting of incidents and events as they occur. The VMS shall have ability to: |
| | · System should support latched alarm. i.e. Alarms once reported, requires correction to be removed from the system. |
| | · Configure automatic/programmed responses based on priority and escalation level for specific event(s). |
| | · Send email and SMS notifications to respective users. |
| | · Search and view list of triggered events based on source, priority, event type, date/time, etc. |
| | · Acknowledge events – Change status, key-in more information |
| | · Escalate event records to the next level of users or share event records with other users through command control. |

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|------------|--|---|
| | · Allow manual respond to triggered events including activating external hardware and transmitting I/O commands. | |
| | · Consolidated e-reports generation with archive video, images, text and other file attachments through command control | |
| 51 | The VMS/ Command control system should provide interactive reporting interface with standard and user-defined custom reports and filtering options to: | |
| | · Retrieve audit trails - user activities, errors and system logs. | |
| | · View list of hardware units and selected configuration options. | |
| | · Storage usage report detailing the available and consumed storage for specific Recording Servers in the VMS | |
| 58 | The system should have Inbuilt diagnostic utility that gathers several different functions of deployed hardware and software modules and attempts/assist to correct the problem in case of deviations from the established baselines occurs. | |
| 59 | The facility should be there to extract & save the video footages / images on CD, DVD, USB, External Storage etc. | |
| 60 | The system should continuously monitor the connectivity with camera even when not connected for live or recording. Upon any failures, system should raise as alarm. | |
| 61 | Various video analytics that shall be offered on identified cameras are: - | |
| | a) Loitering /Vandalism around area under observation | |
| | b) Video Loss Alarm | |
| | c) People Head Counting or Crowd Recognition | |
| | d) Camera Tampering/Camera ON/OFF video alarms | |
| | e) Image Masking- Privacy Protection Video Tracking of Person | |
| | f) Video Tracking of Person/Object in field of view | |
| | g) Left/Abandoned Item Detection and Removed Item Detection | |
| | h) Virtual Fence/Perimeter Breach/ Entry —Exit in restricted zone | |
| 1.4 | 8 port Industrial switch | |
| S.n | Specification | |
| 1 | Switch Should Support 8 10/100BASE-T PoE, 2 SFP ports | |
| 2 | switch should support Operating Temperature 0 to 60 °C | |
| 3 | Switch Should Support Min. 20 Gbps Switching Capacity and Maximum 64 Byte, Packet Forwarding Rate is 14.88 MPPS, 8K MAC address table. | |
| 4 | Switch Should Support IEEE 802.3af & at compliance (for PoE ports) and minimum 240W Power Budget. | |
| 5 | Switch Should Support IGMP Snooping v1, v2 and MLD snooping v1/v2 | |
| 6 | Switch Should Support 4K VLAN ID's, Min 256 static VLAN | |
| 7 | Switch Should Support Port Mirroring One to one/Many to One, | |
| 8 | Switch should support Quality of Service (QoS), 802.1p, Strict, Weighted Round Robin (WRR), Bandwidth Control. | |
| 9 | Switch Should Support IP interfaces, Static routing for inter-VLAN Communication | |
| 10 | Switch should be supplied with the all-necessary components like Power supply, Power cord, Console Cable, Rack-mount kit, Installation Guide, etc. and necessary software image file to fulfil all above-mentioned feature set from day 1. | |
| 1.5 | 1 KVA UPS | |
| S.n | Specification | |
| 1 | Capacity | 1 KVA, 800 Watt (1Øinput/ 1Ø output) |
| 2 | Topology | True Online Double Conversion UPS Standalone UPS with single battery bank |

| | | |
|---|---|--|
| 3 | Technology | Microprocessor based, PWM with IGBT based, Phase neutral reversal protection |
| INPUT | | |
| 1 | Input Facility | 1Ø, 2-wire & Ground, (Phase & Neutral + Ground) |
| 2 | Input Voltage Range | 160 ~ 280 VAC (On 100% Load), 120~290 VAC (On 50% Load), |
| 3 | Input Frequency Range | 45 ~55Hz, Autosensing |
| 4 | Input Power Factor | ≥0.99 |
| 5 | THDI | ≤10% |
| OUTPUT | | |
| 1 | Power Factor | 0.8 |
| 2 | Nominal Output Voltage | 220/230VAC |
| 3 | Voltage regulation | ± 1% static, ± 5% for Dynamic Load |
| 4 | Nominal Frequency | 50Hz |
| 5 | Waveform | Sine wave |
| 6 | Crest factor | 0.125694444 |
| 7 | Total harmonic distortion (THDY) | < 3% (linear load); <5% (nonlinear load) |
| 8 | Output Short Circuit Protection | Electronic, trip |
| 9 | Transfer time | Mains mode to battery mode: 0 ms; Inverter mode to bypass mode: < 4ms |
| 10 | Maintenance/Manual Bypass | Automatic & Manual |
| 11 | DC Ripple factor | ≤1% |
| 12 | Efficiency | Overall (Ac to AC): > 92% |
| 13 | Inverter overload capability | Upto 100% infinite |
| | | >100% ~ 110%: for 60 Secs; |
| | | >110% ~ 130%: for 10 Secs; |
| | | > 130%: upto 1 seconds |
| BATTERY & BATTERY BANK CHARGER | | |
| 1 | DC BUS voltage | 36 VDC |
| 2 | Batteries Type | Sealed Maintenance Free, 12 V |
| 3 | Battery Make | Exide/Quanta |
| 4 | Battery Back up | 1 hour on full load |
| 5 | Number of Battery Banks | One or Two maximum |
| 6 | Required VAH | 1512 |
| 7 | Minimum Charger Rating | The Charger should be able to deliver charging current (minimum) equivalent to 10% of Battery AH rating offered. |
| 8 | Battery re-charge time (After complete discharge) to 90% capacity | 8-10 Hours |
| 9 | Cold Start | should be provided |
| Environmental | | |
| 1 | Operating Temperature | 0-50 degree C |
| 2 | Type of Cooling | Forced Air |
| 1.6 | 24 port Central Switch | |
| | Specification | |

| | |
|------------|--|
| 1 | Architecture |
| 2 | Shall be 19" Rack Mountable Stackable or Integrated solution |
| 3 | Switch shall have 24 Nos. of 10/100/1000 Base-T POE+ Ports and 4 nos. 1/10G SFP+ ports support. |
| 4 | Shall have one Console (RJ-45/Serial) Port |
| 5 | Shall have switching capacity of 128 Gbps |
| 6 | Shall have up to 95 million pps switching throughput |
| 7 | Shall support Stacking functionality |
| 8 | Shall support minimum 370W POE+ budget and 4MB packet buffer |
| 1.7 | CCTV Pole |
| 1 | Mounting structure: Use minimum 5Mtr. High Cylindrical GI Pole (Class B) or suitable structure with 4.5 Mtr. Minimum vertical clearance under the CCTV Camera from the Road surface. |
| 2 | The mounting shall be capable of withstanding roadside vibrations at site of installation. |
| 3 | It shall be provided with suitable walkway for maintenance access. |
| 4 | The side interior and rear of enclosures are provided in maintenance free finish. All enclosure is flat and wipe clean. |
| 5 | For Structural safety, structural safety certificate shall be provided from qualified structural engineers. |
| 6 | Wind Load: WL9 as per EN12966 to withstand high wind speeds and its own load - HT Steel Conforming to grade S355 |
| 7 | Pole Base plate - Fe 410 Conforming to IS 226/IS 2062 |
| 8 | Foundation Bolt- EN 8 grade or better |
| 9 | Pole shall be hot dip galvanized as per IS 2629/IS2633/IS 4759 provided with average coating thickness of 80 Micron or higher. The galvanizing shall be done in single dipping. |
| 10 | The pole shall be installed cast in- SITU RCC foundation on studs with nuts & washers and with adequate number of foundation bolts for greater rigidity basis the soil bearing test report of the actual site. |
| 1.8 | ANPR Pole |
| 1 | The Conical/Polygonal pole and cantilever arm of 2 Meter should be designed to with stand maximum wind speed as per IS: 857 (Minimum 50 m/Sec). Certificate for the structural integrity of the pole shall be submitted to justify the pole dimensions. |
| 2 | Pole shaft and cantilever have conical/polygonal cross section and shall be preferably continuously tapered with single longitudinal welding. |
| 3 | Pole shaft shall be provided with a grade flange plate of suitable thickness with provision of fixing suitable no. of foundation bolts. This base plate shall be filleted welded to the pole shaft at two locations i.e., from inside & outside. |
| 4 | Conical/ Polygonal pole shall have approximately 500 MM door opening length at the elevation of 500 mm from base plate. The door shall be vandal resistant and shall be weatherproof to ensuresafety of electrical connections inside the pole. The door shall be flush fit with locking facility. The pole shall be additionally reinforced with welded steel section, so that the section at door is unaffected and undue bucking of the cut section is prevented. |
| 5 | Material of construction shall be: |
| A | Conical/ Polygonal pole shaft - HT Steel Conforming to grade S355 with minimum plate thickness of 3 MM |
| B | Conical/Polygonal cantilever arm shaft - HT Steel Conforming to grade S355 with minimum plate thickness of 2.5 MM |
| C | Pole base plate - Fe 410 Conforming to IS 226/IS 2062 with minimum thickness of 16 MM |
| D | Pole foundation Bolt- EN 8 grade, GI |
| 6 | Pole shall be hot dip galvanized as per IS 2629/IS2633/IS 4759 slandered with average coating thickness of 86 Micron. The galvanizing shall be done in single dipping. |

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| 7 | The pole shall be installed on a precast or cast in- SITU RCC foundation on studs with nuts & washers and with a set of four foundation bolt for greater rigidity basis the soil bearing test report of the actual site. | |
| 1.9 | Double Jacket cat6 cable | |
| S.n | Specification | |
| 1 | 4 Pair Cable with integral cross -member pair separator for uniform characteristic impedance. | |
| 2 | Category 6 Unshielded Twisted 4 Pair 100 Ω cable shall be compliant with ANSI/ TIA/ EIA-568-C.2- 1/ ROHS Additional ISO/ IEC 11801 2ndEd. Transmission Performance Specification for 4 Pair 100Ω, Category 6 Cabling | |
| 3 | Category 6 UTP cables shall extend between the work area location and its associated telecommunications closet and consist of 4 pair, UTP cable jacket. | |
| 4 | Conductor: Solid Copper | |
| 5 | Conductor Diameter: 0.574, ± 0.01mm (23AWG) | |
| 6 | Inner Jacket: LSZH/ PE/ PVC | |
| 7 | Outer Jacket: PE –Black, Anti-Rodent, LSZH/ PE/ PVC | |
| 8 | Max Temperature: -10°C to +60°C | |
| 9 | Mechanical Test | |
| 10 | Should have Pulling force more than 10 Kg. | |
| 11 | Electrical Test | |
| 12 | Conductor Resistance: <9.38Ω /100m | |
| 13 | Resistance Unbalance 5% Max | |
| 14 | Mutual Capacitance: < 5.6nF/100m | |
| 15 | Capacitance Unbalance: 330pF/100m. | |
| 16 | Characteristic Impedance: 100 +15 Ω conductor | |
| 1.10 | Outdoor JB | |
| S.n | Parameter | Min. Specification |
| 1 | Size | Suitable size as per site requirements to house the field equipment. |
| 2 | Cabinet Material | GI with powder coated (Antirust coating) |
| 3 | Material Thickness | Min 1.2 mm |
| 4 | Number of Locks | Three Point Lock |
| 5 | Protection | IP 55, Junction Box design should ensure to keep the temperature within suitable operating range for equipment's and should also avoid intentional water splash and dust intake. With built-in redundant fan and filter assembly inherent in the design. Junction Box design should ensure to keep the Operating temperature range of 10° C to 50° C. |
| 6 | Mounting | To be mounted on a Base stand made up of powder coated MS Angle Profile with minimum height of 600 MM and should be covered from all sides with GI/MS powder coated sheet of minimum 1.2 MM thickness. The height of the stand to be selected based on the surface gradient to ensure that in case of waterlogging the logged water should not enter the JB. |
| 7 | Cabling | All cabling to be brought from the bottom through double compression glands to ensure that the IP rating is not compromised. |
| 8 | Form Factor | Rack Mount/DIN Rail |
| 9 | Other Features | Rain Canopy, Cable entry with glands, proper earthing and Fans/any other accessories as required for operation of equipment's within junction box. |

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| 10 | Additional | Pocket to keep papers/file on inner side of the door LED light with limit switch to switch on the light once door is open. Additionally, a power off switch also to be available on the LED light. |
| 1.11 | Network SPD | |
| S.n | Parameter | Min. Specification |
| 1 | Connection Type | Series connection |
| 2 | Application Type | 10/100/1000 Mbps LAN |
| 3 | Transmission Speed | 1 Gbps |
| 4 | Application | Secondary 8 wire category 6 |
| 5 | Connector | RJ 45 |
| 6 | Nominal Surge Current | Core to Core: 350 A (8/20 μ s) |
| | | Core to Ground: 2 KA (8/20 μ s) |
| 7 | Pulse discharge current | 1 kA |
| 8 | Maximum Continuous | ± 5 V DC (± 57 V DC / PoE+) |
| 9 | Enclosure | IP20 |
| 10 | Temperature (Ambient) | -10°C to 55 °C or above |
| 11 | Voltage Protection level | Core -- core ≤ 20 V |
| | | Core -- Earth ≤ 700 V |
| 12 | SPD Compliance | IEC 61643-21 or equivalent BIS |
| 13 | Approvals | CU, UL Listed or equivalent BIS |
| 1.12 | Power SPD | |
| S.n | Parameter | Specification |
| 1 | IEC test Classification | II / T2 or BIS Equivalent |
| 2 | Technology | L-N: MOV Technology |
| | | & N-PE: GDT Technology |
| 3 | Pluggability | Pluggable for Safe and Easy Maintenance and have provision of testing respective plugs for preventive periodic health monitoring. |
| 4 | Nominal Voltage Un | 240 / 415 V AC (TN-S / TT) |
| 5 | Maximum Continuous Operating Voltage | 335 V AC |
| 6 | Nominal Discharge Current | 20 kA |
| 7 | Maximum Discharge Current | 40 kA |
| 8 | Short Circuit Current rating ISCCR | 25 kA |
| 9 | Voltage Protection Level Up (L-N) | ≤ 1.5 kV |
| 10 | Temporary Over Voltage UT (L-N) | 415 V AC (5s / Withstand Mode) or better |
| 11 | Temporary Over Voltage UT (N-PE) | 1200 V AC (200ms / Withstand Mode) or better |
| 12 | Response time | L-N: ≤ 25 ns |
| | | N-PE: ≤ 100 ns |
| 13 | Mounting | DIN Rail |
| 1.13 | ANPR Software | |
| S.n | Functional requirement | |
| 1 | Vehicle Detection and Video Capture Module | |

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| A | The System should automatically detect a vehicle in the camera view using video detection and activate license plate recognition. Suitable external IR Illuminator with Eye Safety test report/ equivalent certification should be used in conjunction with ANPR camera for detection of number plates during night-time. |
| 2 | License Plate Detection |
| A | The System shall automatically detect the license plate in the captured video feed in real-time. |
| B | The system shall perform OCR (optical character recognition) of the license plate characters (English alpha-numeric characters in standard fonts). |
| C | The System shall store JPEG image of vehicle and license plate and enter the license plate number into Postgre SQL database along with date time stamp and site location details. |
| D | System should be able to detect and recognize the English alpha numeric License plate in standard fonts and formats of all vehicles including cars, HCV, and LCV. |
| E | The system should be able to process and read number plates of vehicles with speed of 180 km/hr and above. |
| F | The system shall be robust to variation in License Plates in terms of font, size, contrast and colour and should work with good accuracy. |
| G | The system should do processing locally on the LPU installed at the ANPR camera location/ junction, to avoid any time lag and performance issue due to network disconnection, bandwidth constraints, etc. |
| 3 | Colour Detection |
| A | The system shall detect the colour of all vehicles in the camera view during daytime and label them as per the predefined list of configured system colours. The system will store the colour information of each vehicle along with the license plate for each transaction in the database. |
| B | The system shall have options to search historical records for post event analysis by the vehicle colour or the vehicle colour with license plate and date time combinations. |
| 4 | Alert Generation |
| A | The system should have option to input certain license plates according to the hot listed categories. |
| B | The system should be able to generate automatic alarms to alert the control room personnel for further action, in the event of detection of any vehicle falling in the Hot listed categories. |
| 5 | Vehicle Log |
| A | The system shall enable easy and quick retrieval of snapshots, video and other data for post incident analysis and investigations. |
| B | The system should provide advanced and smart searching facility of License Plates. There should be an option of searching number plates almost matching with the specific number entered (up to 1- and 2- character distance). |
| 6 | Vehicle Make Detection Module |
| A | System should be able to identify the make of the vehicle coming in the field of view of the camera with good accuracy. |
| 7 | Vehicle Classification module (Optional) |
| A | System should be able to classify the vehicle into LMV, HMV and 2-wheelers. |
| 8 | Central Management |
| A | The Central Management Module shall run on the ANPRS Central Server in control booth. It should be possible to view records and edit hotlists from the Central Server. |
| B | The system should have reading accuracy of minimum 90% on vehicles and above which are visible by human eye for English alphanumeric number plates. |
| C | The proposed system should have the capability to transfer the data to Central Command Centre through proper encryption in real time. |
| D | System Should have capability to generate alerts / alarm If any vehicle changes its designated route. |

| 1.14 Storage | | |
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| S.n | Parameter | Specification |
| 1 | Form Factor | Rack 2U or higher |
| 2 | Controller | The proposed NAS should be configured with minimum single controller/Processor. |
| 3 | Processor | Intel® Xeon-Silver 4208 (2.1GHz/8-core/85W) Processor or better |
| 4 | Cache/Memory | NAS must be with minimum 64 GB ECC RAM and upgrade up to 128 GB or higher. |
| 5 | Internal storage capacity | 1. Support for SAS/SATAIII 3.5'' HDD or SSD. |
| | | 2. Offered NAS solution must support at-least 60 bay 7.2K RPM HDD slot in RAID 5. |
| 6 | Front/Back-end ports | 1. Minimum 2 x 1G Ethernet Ports. |
| | | 2. Minimum 2 x 10G SFP+ Ports |
| | | 3. Two or more USB 3.0 Ports. |
| 7 | RAID | Must Support for RAID Levels: 0, 1, 5, 6 |
| 8 | Authentication Support | NAS must support Windows AD authentication. |
| 9 | Network Client Type Support | Windows and Linux. |
| 10 | Management | Must support GUI. |
| 11 | Cables, Driver's connectors and accessories | Must come with require accessories, cable and connector from day one. |
| 12 | Power Supply | Dual Redundant Hot-Swappable Power Supplies |
| 1.15 Air Conditioner (AC) | | |
| S.n | Parameter | Specification |
| 1 | Compressor | Rotary or better |
| 2 | Dehumidification | Yes |
| 3 | Remote Control | Yes |
| 4 | Indoor Temperature Indicator | Yes |
| 5 | Turbo Mode or equivalent | Yes |
| 6 | Auto Air Swing | Yes |
| 7 | Active Carbon Filter | Yes |
| 8 | Sleep Mode | Yes |
| 9 | Capacity | 2 Ton |
| 10 | BEE Rating | 5 star |
| 11 | AC Type | Split |
| 12 | Binding Type | Copper |
| 13 | Warranty | 5 years or more |
| 1.16 Television (TV) 43 Inch | | |
| S.n | Features | Specification |
| 1 | Display Size | 42 inch or above |
| 2 | Native Resolution | 3840 x 2160 (UHD) 4k or better |
| 3 | Brightness | Minimum 300 cd/m2 or above |
| 4 | Contrast Ratio (Native) | Minimum 1100:1 or better |
| 5 | Viewing Angle | 178 * 178 |
| 6 | Refresh Rate | 60 Hz and above |
| 7 | Input Ports | HDMI-2, USB 2.0, RJ45-1 |

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| 8 | Output Ports | Digital audio out/ Headphone out |
| 9 | Wi-Fi | Built-in Wifi required |
| 10 | Audio | 20W (10W * 2) |
| 11 | Certificates | UL/CE/CB & BIS, RoHS |
| 12 | Accessories | Wall mount, Table stand, Remote and standard cables with complete Installation |
| 13 | OEM Warranty | 3 Years |
| 14 | Operating System in case of smart TV | Web OS/ Andriod / Tizen |
| 15 | OEM Manufacturing date | OEM Manufacturing 2022 or better |
| Local Storage | | |
| | SD card | Camera shall be provided with SD card of 32 GB. In the event of failure of connectivity to the central server the camera shall automatically record video locally on the SD card. |
| | | After the connectivity is restored these SD card based recordings shall be automatically merged with the server recording. |
| <u>G-Functional requirement</u> | | |
| G 1-Video analytics | | |
| 1. Surveillance system shall have the capability to deploy intelligent video analytics software on any of the selected cameras. | | |
| 2. This software shall have the capability to provide various alarms & triggers. | | |
| 3. The software shall essentially evolve to automate the suspect activity capture and escalation; eliminate the need of human observation of video on a 24x7 basis. | | |
| 4. Analytics software shall bring significant benefit to review the incidences and look for suspicious activity in both live video feeds and recorded footages. | | |
| 5. The software shall have filters to distinguish between humans, animals, vehicles or objects. | | |
| 6. The video analytics software shall be implemented at the server level in central datacenter compatible with windows server OS or Linux for highest performance and reliability. | | |
| 7. Various video analytics that shall be offered on identified cameras are:- | | |
| a) Loitering /Vandalism around area under observation | | |
| b) Video Loss Alarm | | |
| c) People Head Counting or Crowd Recognition | | |
| d) Camera Tampering/Camera ON/OFF video alarms | | |
| e) Image Masking- Privacy Protection Video Tracking of Person | | |
| f) Video Tracking of Person/Object in field of view | | |
| g) Left/Abandoned Item Detection and Removed Item Detection | | |
| h) Virtual Fence/Perimeter Breach/ Entry –Exit in restricted zone | | |
| G 2-Automatic number plate recognition system | | |
| 1. The ANPR System shall enable monitoring of vehicle flow at strategic locations. | | |
| 2. The system shall support real-time detection of vehicles at the deployed locations, reading its number plate, database lookup from central server and triggering of alarms / alerts based on the vehicle status as specified in the database. | | |
| G3 - Storage | | |
| 1 | Complete system with appropriate accessories & fixtures for recording, storage of footages with a provision of retention for minimum 30 days. | |
| 2 | Ensure ability of the system to view and record during day & night and also to capture the live video stream, store, retrieve and analyze video images with functional specifications specified in | |

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| | this document. |
| 3 | External NL-SAS storage with RAID 5 configuration. |
| 4 | Recording resolution FULL HD@ 30 FPS. |
| 5 | Flagged data may be Approx 5% of recorded data . Flagged data can be retain for at least 90 days. |

G4- General

Ensure provision of latest version of licensed software and compatibility with 3rd party components / solutions for seamless integration.

H –Service Level Agreement (SLA)

As part of this RFP, Bidder shall ensure that redundancy and fault tolerance is considered at the components level in the actual deployment.

The following table details out service level agreement for service availability of components.

System availability (Up time): System availability shall be calculated as $[100\% - (\text{Downtime} / \text{Total time}) * 100]$.

| Parameter | SLA Target | Penalty | Measurement Tool/Method |
|--|-----------------|--|--|
| Servers, Cameras, networking equipments, networking & associated Software and Hardware mentioned in BOQ or any other peripherals components. | >= 99.5% uptime | · If uptime is Less than 99.5% and Greater than or equal to 98%. | Measured 24X7X365 (measured/ calculated monthly) |
| | | Rs. 1000 / Hour Penalty Applicable. | |
| | | · If uptime is Less than 98.0% and Greater than or equal to 95%. | |
| | | Rs. 2000 / Hour Penalty Applicable. | |
| | | · If uptime is Less than 95.0% | |
| | | Rs. 5000 / Hour Penalty Applicable. | |

Note: Penalty shall be deducted from the Security Deposit.

I-Command Control Centre

- All camera feeds should be available for viewing by Police Personnel at any point of time.
- Command Control Center should have simultaneous viewing capability for about 10% of all cameras.
- The Command Center would be equipped with state-of-the-art equipment's to support monitoring and analysis of video feeds.
- For the purpose of common viewing of the cameras, video-walls/TV screens will be installed in the office.

J-Training and Capacity Building

- 5 days hands on experiences on Video Management System (VMS) and Analytics for 10 persons.
- Preparation of Training Material for operation, upkeep and security related subjects for technical, executive and supervisory staff.
- Preparation of Detailed Standard Operating Procedures (SOP) for police personal to be provided in consultation with head of security.

K -Operations and Maintenance

- Bidder shall also be responsible for the maintenance and management of entire systems, solutions, application deployed as part of this RFP for a period of 5 year from the Go-Live date in an efficient and effective manner
- Deploying manpower (minimum 2 persons) for solution maintenance and monitoring support which includes change request management, bug tracking and resolution, production support, performing version and patch updates.
- Monitoring of all Equipment, display facilities, furnishing & finishing etc. which shall be monitoring

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| the CCTV system. |
| 4. Annual technical support for all hardware and software components for the O & M period. |
| 5. Preventive, repair maintenance and replacement of hardware and software components as applicable under the warranty and AMC services during the contract period. |
| 6. Recurring refresher trainings for the users and Change Management activities. |
| 7. Preventive, repair maintenance and replacement of non-ICT components as applicable under the warranty and AMC services during the contract period. |
| 8. Overall maintenance of the CCTV solution and continuity of Operations as per SLAs. |
| 9. Submit Quarterly reports as desired by the department. |
| 10. Warranty - 5 years |
| <u>L-Other Terms & Conditions</u> |
| 1. Provisioning of required network bandwidth, Internet bandwidth and connectivity at various locations to connect with CCTV Solution shall be done by Bidder. |
| 2. The maintenance phase will be for a period of 5 (five) years after Go-Live. |
| 3. The successful bidder shall supply, commission and integrate the underlying infrastructure required for running the applications and managing the entire system. |
| 4. The bidder as the part of overall solution should consider latest & innovative technologies and propose the most optimal solution. The solution implemented for this project needs to be highly secure, considering that it is intended to handle sensitive data. |
| 5. Bidder shall be responsible for obtaining all permissions and approvals necessary to install the systems components as per the design. |
| 6. During project period, in the event of any damage to CCTV cameras due to accident or due to any other unforeseen circumstances, the bidder shall repair/replace the camera within 15 days of the said incident. Failure to comply with the time period shall attract penalty as mentioned in SLA. |
| 7. Shelf-life of Hardware should be min. 5 Years. |
| 8. Manufacturing Date of Hardware Products supplied should be in Year 2022 or later. |
| 9. The bidder should have successfully executed and implemented at least one supply order of similar CCTV Project worth of minimum 50% of the Quoted Bid Price, in Central or State Govt/ Govt Undertaking /PSU/ International organizations/Autonomous - Semi Autonomous bodies of Central/State Government in last four years(i.e., 2020-2021, 2021-2022 ,2022-2023 and 2023-2024). Copy of PO must be enclosed as proof. |

