



## रेलटेल कॉर्पोरेशन ऑफ इंडिया लिमिटेड

(भारत सरकार का उपक्रम, रेल मंत्रालय)

सूचीबद्ध व्यावसायिक सहयोगियों या OEM या OEM द्वारा अधिकृत भागीदार/वितरक में से भागीदार के चयन के लिए रुचि की अभिव्यक्ति

“सीसीटीवी आधारित ई-निगरानी प्रणाली के डिजाइन, आपूर्ति, स्थापना और रखरखाव के लिए सिस्टम इंटीग्रेटर की नियुक्ति, दर अनुबंध के आधार पर कैपेक्स और ओपेक्स मॉडल पर व्यावसायिक सहयोगी का चयन।”

ईओआई नंबर: रेलटेल/डब्ल्यूआर/बीपीएल/एमपी-डब्ल्यूएलसी/2025-26/18 दिनांक: 27 अक्टूबर 2025

प्लॉट नंबर 17, पहली मंजिल, रघुनाथ नगर, शाहपुरा पुलिस स्टेशन के पास,  
भोपाल एमपी-462039

**“रुचि की अभिव्यक्ति (ईओआई) सूचना”**  
**रेलटेल कॉर्पोरेशन ऑफ इंडिया लिमिटेड,**  
**प्लॉट नंबर 17, प्रथम तल,**  
**रघुनाथ नगर, (शाहपुरा पुलिस स्टेशन के पास)**  
**भोपाल एमपी - 462039**

**ईओआई नंबर: रेलटेल/डब्ल्यूआर/बीपीएल/एमपी-डब्ल्यूएलसी/2025-26/18      दिनांक: 27 अक्टूबर 2025**

रेलटेल कॉर्पोरेशन ऑफ इंडिया लिमिटेड, (जिसे आगे "रेलटेल" कहा जाएगा) "सीसीटीवी आधारित ई-निगरानी प्रणाली के डिजाइन, आपूर्ति, स्थापना और रखरखाव के लिए सिस्टम इंटीग्रेटर की नियुक्ति, दर अनुबंध के आधार पर कैपेक्स और ओपेक्स मॉडल पर व्यावसायिक सहयोगी का चयन।" के लिए रुचि की अभिव्यक्ति में भागीदारी हेतु दस्तावेज जारी कर रहा है। जो की रेलटेल के सूचीबद्ध भागीदारों या ओईएम या ओईएम के अधिकृत भागीदार/वितरक के लिए वैध है।

विवरण निम्नानुसार है:

|   |                                                                                 |                                  |
|---|---------------------------------------------------------------------------------|----------------------------------|
| 1 | बोलीदाताओं द्वारा ईओआई के विरुद्ध बोली प्रतिक्रिया पैकेट जमा करने की अंतिम तिथि | 06 नवम्बर 2025 को 16:00 बजे      |
| 2 | ईओआई के बोली प्रतिक्रिया पैकेट की ओपनिंग तिथि                                   | 06 नवम्बर 2025 को 16:30 बजे      |
| 3 | कार्य के दायरे के लिए प्रस्तुत की जाने वाली प्रतियों की संख्या                  | एक (one)                         |
| 4 | ईएमडी राशि                                                                      | Rs. 20,00,000/- (बीस लाख)        |
| 5 | टेन्डर फीस                                                                      | Rs. 11,800/- (ग्यारह हजार आठ सौ) |
| 6 | प्रोसेसिंग फीस                                                                  | Rs. 295/- (दो सौ पंचानबे)        |

ईएमडी रेलटेल कॉर्पोरेशन ऑफ इंडिया लिमिटेड के पक्ष में होनी चाहिए और मुंबई में ऑनलाइन बैंक ट्रांसफर के माध्यम से देय होगी। पार्टनर को प्रस्ताव के साथ ऑनलाइन भुगतान हस्तांतरण विवरण जैसे यूटीआर नंबर, तारीख और बैंक को साझा करना होगा।

**रेलटेल बैंक विवरण:**

**यूनियन बैंक ऑफ इंडिया,**

**खाता संख्या - 317801010036605,**

**IFSC कोड - UBIN0531782,**

**शाखा का नाम - महालक्ष्मी मुंबई शाखा**

योग्य व्यावसायिक सहयोगी/ओईएम/ओईएम के अधिकृत साझेदार या वितरक को ईओआई दस्तावेज के लिए इस आमंत्रण से संबंधित सभी संचार निम्नलिखित नामित संपर्क व्यक्तियों के माध्यम से निर्देशित करना आवश्यक है:

स्तर :1 संपर्क: श्री आनन्द कुमार

पद : संयुक्त महाप्रबंधक/विपणन

ईमेल : [anandnkn@railtelindia.com](mailto:anandnkn@railtelindia.com)

संपर्क: +91-[9004444107](tel:9004444107)

स्तर :2 संपर्क: श्री पवन कुमार भार्गव

पद : ईडी/टीएम/भोपाल

ईमेल : [pavan@railtelindia.com](mailto:pavan@railtelindia.com)

Note:

1. Empaneled partners/OEMs/authorized partner or distributor of OEMs are required to submit soft copy (password protected PDF) of bid response packet (separate for Technical bid and Financial Bid) through an e-mail at [bploffice@railtelindia.com](mailto:bploffice@railtelindia.com) duly signed by Authorized Signatories with Company seal and stamp. The size of both the files should not exceed 20 Mb.
2. The OEMs need not be prior empaneled Business Associates, given their proven technical prowess. However, The EOI response is invited from eligible Empaneled Partners of RailTel only in case of participation by Business Associates.
3. The password will be sought at the time of opening of the bid response packet.
4. All the documents must be submitted with proper indexing and page no.
5. This is an exclusive arrangement with empaneled business associate/OEMs/ authorized partner or distributor of OEM of RailTel for fulfilling the end customer requirements. Selected partner's authorized signatory has to give an undertaking they will not submit directly or indirectly their bids and techno-commercial solution/association with any other organization once selected through this EOI (before and after submission of bid to prospective organization by RailTel). This undertaking has to be given with this EOI Response.

## 1. Introduction about RailTel

RailTel Corporation of India Limited (RailTel), an ISO-9001:2000 organization is a “Navratna” company under Ministry of Railways, Government of India. The Corporation was formed in Sept 2000 with the objectives to create nationwide Broadband Telecom and Multimedia Network in all parts of the country, to modernize Train Control Operation and Safety System of Indian Railways and to contribute to realization of goals and objective of national telecom policy 1999. RailTel is a wholly owned subsidiary of Indian Railways.

RailTel has approximately 70000 kms of OFC along the protected Railway tracks. The transport network is built on high capacity DWDM and an IP/ MPLS network over it to support mission critical communication requirements of Indian Railways and other customers. RailTel has Tier-III Data Center in Gurgaon and Secunderabad hosting / collocating critical applications. RailTel is also providing Telepresence as a Service (TPaaS), where a High- Definition Video Conference facility bundled with required BW is provided as a Service.

For ensuring efficient administration across India, country has been divided into four regions namely, Eastern, Northern, Southern & Western each headed by Executive Director and Headquartered at Kolkata, New Delhi, Secunderabad & Mumbai respectively. These regions are further divided into territories for efficient working. RailTel has territorial offices at Guwahati, & Bhubaneswar in East, Chandigarh, Jaipur, Lucknow in North, Chennai & Bangalore in South, Bhopal, and Pune & Ahmedabad in West. Various other territorial offices across the country are proposed to be created shortly.

RailTel’s business service lines can be categorized into three heads namely B2G/B2B (Business to Government and Business to Business) and B2C (Business to customers):

Licenses & Service portfolio:

Presently, RailTel holds Infrastructure Provider -1, National Long-Distance Operator, International Long-Distance Operator and Internet Service Provider (Class-A) licenses under which the following services are being offered to various customers:



**a) Carrier Services**

- National Long Distance: Carriage of Inter & Intra -circle Voice Traffic across India using state of the art NGN based network through its Interconnection with all leading Telecom Operators
- Lease Line Services: Available for granularities from E1 to multiple of Gigabit bandwidth & above
- Dark Fiber/Lambda: Leasing to MSOs/Telco's along secured Right of Way of Railway tracks
- Co-location Services: Leasing of Space and 1000+ Towers for collocation of MSC/BSC/BTS of Telco's

**b) Enterprise Services**

- Managed Lease Line Services: Available for granularities from E1, DS-3, STM-1 & above
- MPLS VPN: Layer-2 & Layer-3 VPN available for granularities from 2 Mbps & above
- Dedicated Internet Bandwidth: Experience the "Always ON" internet connectivity at your fingertips in granularities 2 Mbps to several Gbps

**c) DATA CENTER Infrastructure as a service (IaaS), Hosting as Services, Security operation Centre as a Service (SOCaaS):** RailTel has MeitY empaneled two Tier-III data centres in Gurgaon & Secunderabad. Presently RailTel is hosting critical applications of Indian Railways, Central & State government/ PSUs applications. RailTel will facilitate Government's applications / Hosting services including smooth transition to secured state owned RailTel's Data Centers and Disaster Recovery Centres. RailTel also offers SOC as a Service 'SOCaaS'. In addition, RailTel offers VPN client services so that employees can seamlessly access government's intranet, applications securely from anywhere without compromising security.

- National Long Distance: Carriage of Inter & Intra -circle Voice Traffic across India using state of the art NGN based network through its Interconnection with all leading Telecom Operators
- Lease Line Services: Available for granularities from E1 to multiple of Gigabit bandwidth & above
- Dark Fiber/Lambda: Leasing to MSOs/Telco's along secured Right of Way of Railway tracks
- Co-location Services: Leasing of Space and 1000+ Towers for collocation of MSC/BSC/BTS of Telco's

**d) High-Definition Video Conference:** RailTel has unique service model of providing high - definition video conference bundled with Video Conference equipment, bandwidth and FMS services to provide end to end seamless services on OPEX model connecting HQ with other critical offices. RailTel also offers application-based video conference solution for employees to be productive specially during this pandemic situation.

**e) Retail Services – Rail-Wire**

Rail-Wire: Triple Play Broadband Services for the Masses. RailTel has unique model of delivering broadband services, wherein local entrepreneurs are engaged in delivering &

maintaining broadband services and up-to 66% of the total revenues earned are shared to these local entrepreneurs in the state, generating jobs and revitalizing local economies. On date RailTel is serving approx. 4,00,000 subscribers on PAN Indian basis. RailTel can provide broadband service across— Government PSU or any organization's officers colonies and residences.

## 2. Project Background and Scope of Work

RailTel is floating EOI for "Selection of business partner for Appointment of System Integrator for Design, Supply, Installation and Maintenance of CCTV based e-surveillance System" RailTel invites EOIs from RailTel's Empaneled Partners/OEMs/authorized partner or distributor of OEMs for the selection of suitable partner for participating in above mentioned work for the agreed scope work. The empaneled partner/OEMs/authorized partner or distributor of OEMs is expected to have excellent execution capability and good understanding customer local environment.

The scope of work is to "Selection of business partner for Appointment of System Integrator for Design, Supply, Installation and Maintenance of CCTV based e-surveillance System On CAPEX and OPEX Model on Rate Contract Basis."as per there requirement. The above scope of work is indicative, and the detailed scope of work will be shared after the completion of the EOI process. (Refer Annexure-6)

In case of any discrepancy or ambiguity in any clause/specification pertaining to the scope of work area, the decision of the end customer organization shall supersede and will be considered sacrosanct. (All associated clarifications, response to queries, revisions, addendum and corrigendum, associated prime service agreement (PSA)/MSA/SLA also included.)

Special Note: RailTel may retain some portion of the work mentioned in the end organization RFP, where RailTel has competence so that overall proposal becomes most winnable proposal. Scope of Work and payment terms shall be on a back-to-back basis as per the end customer RFP.

### 3. Response to EOI guidelines

#### 3.1 Language of Proposals

The proposal and all correspondence and documents shall be written in English in password protected PDF file through an email (size of email should not exceed 20Mb) to [bpltooffice@railtelindia.com](mailto:bpltooffice@railtelindia.com).

#### 3.2 RailTel's Right to Accept/Reject responses

RailTel reserves the right to accept or reject any response and annul the bidding process or even reject all responses at any time prior to selecting the partner, without thereby incurring any liability to the affected bidder or Business Associate/OEM/authorized partner or distributor of OEM or without any obligation to inform the affected bidder or bidders about the grounds for RailTel's action.

#### 3.3 EOI response Document

The bidder is expected to examine all instructions, forms, terms and conditions and technical specifications in the bidding documents. Submission of bids, not substantially responsive to the bidding document in every aspect will be at the bidder's risk and may result in rejection of its bid without any further reference to the bidder.

All pages of the documents shall be signed by the bidder including the closing page in token of his having studied the EOI document and should be submitted along with the bid.

#### 3.4 Period of Validity of bids and Bid Currency

Bids shall remain valid for 180 days from the date of submission.

#### 3.5 Bidding Process

The bidding process as defined in para 9.

#### 3.6 Bid Earnest Money (EMD)

- 3.6.1 The Business Associate shall furnish a sum as given in EOI Notice via online transfer from any scheduled bank in India in favor of "RailTel Corporation of India Limited" along with the offer.
- 3.6.2 Offers not accompanied with valid EOI Earnest Money Deposit and Tender Fee shall be summarily rejected.

- 3.6.3 EMD and Tender Fees will be deposited in the form of Online Bank Transfer.
- 3.6.4 The validity of such EMD shall be maintained till the finalization of end Customer RFP/Tender i.e. award of order and till submission of Performance Guarantee of requisite value required by end customer on back-to-back basis.
- 3.6.5 Return of EMD for unsuccessful Business Associates: Final EMD of the unsuccessful Business Associate shall be returned without interest after completion of EOI process (i.e. after pre-bid agreement is signed with the selected partner)
- 3.6.6 Return of EMD for successful Business Associate: Final Earnest Money Deposit if applicable of the successful bidder will be discharged / returned as promptly as possible after the receipt of RailTel's EMD/BG from the Customer and or on receipt of Security Deposit Performance Bank Guarantee as applicable (clause no. 4.7) from Business Associate whichever is later.
- 3.6.6.1 The EOI EMD may be forfeited and or penal action shall be initiated if a Business Associate withdraws his offer or modifies the terms and conditions of the offer during validity period.

### 3.7 Security Deposit / Performance Bank Guarantee (PBG)

- 3.7.1 In case the bid is successful, the PBG of requisite amount proportionate to the agreed scope of the work will have to be submitted to RailTel. (5% of the PO Value)
- 3.7.2 As per work share arrangements agreed between RailTel and Business Associate the PBG will be proportionately decided and submitted by the selected Business Associate.

### 3.8 Last date & time for Submission of EOI response

EOI response must be submitted to RailTel at the email address specified in the preamble not later than the specified date and time mentioned in the preamble.

### 3.9 Modification and/or Withdrawal of EOI response

EOI response once submitted will be treated, as final and no modification will be permitted except with the consent of the RailTel. No Business Associate shall be allowed to withdraw the response after the last date and time for submission.

The successful Business Associate will not be allowed to withdraw or back out from the response commitments. In case of withdrawal or back out by the successful business associate, the Earnest Money Deposit shall be forfeited, and all interests/claims of such Business Associate shall be deemed as foreclosed.

### 3.10 Clarification of EOI Response

To assist in the examination, evaluation and comparison of bids the purchaser may, at its discretion, ask the Business Associate for clarification. The response should be in writing and no change in the price or substance of the EOI response shall be sought, offered or permitted.

### 3.11 Period of Association/Validity of Agreement

RailTel will enter into agreement with selected bidder with detailed Terms and conditions.

## 4. Pre-Qualification Criteria for Bidding Business Partner of RailTel

| S. No. | Particulars                                                                                                                                                                                                                                                                                                                                                                              | Criteria for Tender Package                                                                                                                                                                                                                                                                                                     |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A)     | Financial Conditions                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                 |
| 1      | <b>Legal Entity:</b><br>Proprietorship Firms Partnership Firms registered under Partnership Act 1932 Registered under the Companies Act 1956 /2013 Limited Liability Company 2008 and must have been in operation for a period of at least 5 (Five) years as of March 31, 2025 registered with requisite Statutory Authorities.                                                          | Bidder to submit following documents as applicable: <ul style="list-style-type: none"><li>• Certificate of Incorporation / MoA – AoA of the Company</li><li>• PAN Card</li><li>• GST Registration certificate</li><li>• Income Tax returns for preceding three financial years other tax certificates (as applicable)</li></ul> |
| 2      | The participating bidder should be a currently active empanelled business associate of RailTel or OEM(s) or its authorized partner/distributor.                                                                                                                                                                                                                                          | Valid Empanelment letter issued by RailTel.                                                                                                                                                                                                                                                                                     |
| 3      | <b>Average Annual Turnover:</b><br>The bidder should have turnover of Rs. 15 Crores as an average annual turnover of the bidder in the preceding Three financial years i.e. FY-22-23, FY, 23-24, FY,24-25 Bidder to submit certificate from their statutory auditor certifying average annual turnover of mentioned 3 financial years supported by Audited B/S and financial statements. | <ol style="list-style-type: none"><li>1. Audited Balance Sheet.</li><li>2. Audited Profit &amp; Loss Statement.</li><li>3. CA/Statutory Auditor Certificate (with UDIN)</li></ol>                                                                                                                                               |
| 4      | <b>Positive Net Worth:</b><br>Net-worth as on 31-Mar-2025 should be positive. Bidder to submit the statutory auditor certificate certifying the net-worth as on 31-Mar-2025.                                                                                                                                                                                                             | Audited Balance Sheet, Audited Profit & Loss Statement, and CA/Statutory Auditor Certificate (with UDIN)                                                                                                                                                                                                                        |
| 5      | The bidder should have valid experience<br>The Bidder should have similar experience of at least one Project having Supply, Installation and Maintenance or SITC or Supply of CCTV & Completion Certificates.                                                                                                                                                                            | <ol style="list-style-type: none"><li>a) Copy of Work Orders /Agreement /performance certificate.</li><li>b) Completion certification/Client certificate from competent authority.</li></ol>                                                                                                                                    |

|    |                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6  | Blacklisting Declaration/Performance Criteria: -<br>The bidder should not have been blacklisted by any Government PSU/Council/University/agency in India in the last 5 years. | 1. Self-declaration on company letterhead.<br>2. No record of poor performance or abandoned work and should not have been blacklisted or their contract terminated by Central Govt. / any State Govt. / any Govt. Organization or Department/PSUs/PSEs in India during the last three (03) years from the date of bid submission. Bidder to provide affidavit on a Rs. 500 (Rs Five Hundred) stamp paper in support of the above as per annexure 10.3. |
| 7  | Certification Requirement                                                                                                                                                     | 9001:2015, ISO 20000, ISO/IEC27001                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 8  | MAF                                                                                                                                                                           | <ol style="list-style-type: none"> <li>OEM/OEMs Compliance of the offered product (i.e. CCTV Cameras, NVRs and Switches) on OEM/OEMs Letterhead/s along with data sheets.</li> <li>Documentary Proof from OEM for MAF to be submitted by bidder.</li> </ol>                                                                                                                                                                                            |
| 9  | OEM Presence                                                                                                                                                                  | The OEM / CCTV Camera Product & its surveillance accessories Company (major components) should have registered office and service centre & toll-free no. in India since at least last 5 years from the bid submission date.                                                                                                                                                                                                                            |
| 10 | Customer Service                                                                                                                                                              | Bidder should have toll free number for call log.<br>Self-declaration with valid and working toll free number details.                                                                                                                                                                                                                                                                                                                                 |

| S No. | Particulars                          | Criteria for Tender Package                                                                                                                                                                                                                    |
|-------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                                      | (Mandatory Compliance & Document Submission)                                                                                                                                                                                                   |
| B)    | Annexures                            |                                                                                                                                                                                                                                                |
| 1     | Annexure 1                           | Covering Letter: Self-certification duly signed by authorized signatory on company letter head.                                                                                                                                                |
| 2     | Annexure 2                           | The Bidder should agree to abide by all the technical, commercial & financial conditions of the end customer RFP for which EOI is submitted.                                                                                                   |
|       |                                      | Self-certification duly signed by authorized signatory on company letter head.                                                                                                                                                                 |
| 3     | Annexure 3                           | An undertaking signed by the Authorized Signatory of the company to be provided on letter head. The Bidder should not have been blacklisted / debarred by any Governmental / Non-Governmental Organization in India as on bid submission date. |
| 4     | Annexure-4                           | Format for Affidavit to be uploaded by BA along with the tender documents.                                                                                                                                                                     |
| 5     | Annexure-5                           | Non-disclosure agreement with RailTel.                                                                                                                                                                                                         |
| 6     | Annexure-6                           | Tender Document                                                                                                                                                                                                                                |
| 7     | Annexure-7                           | BOQ of the RFP document. Price Bid Format to be submitted in separate password protected pdf.                                                                                                                                                  |
| 8     | Annexure-8                           | Power of Attorney or Board Resolution in favor of one of its employees who will sign the Bid Documents.                                                                                                                                        |
| 9     | Additional Documents to be Submitted | Refer Annexure -6 (Tender/RFP document)<br>Technical & Commercial Proposal with overview of the project with strength of the Partner.                                                                                                          |

## 5. Bidder's Profile

The bidder shall provide the information in the below table:

| S. No. | ITEM                                                                                                                                                                                        | Details |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| 1.     | Full name of bidder's firm                                                                                                                                                                  |         |
| 2.     | Full address, telephone numbers, fax numbers, and email address of the primary office of the organization / main / head / corporate office                                                  |         |
| 3.     | Name, designation and full address of the Chief Executive Officer of the bidder's organization as a whole, including contact numbers and email Address                                      |         |
| 4.     | Full address, telephone and fax numbers, and email addresses of the office of the organization dealing with this tender                                                                     |         |
| 5.     | Name, designation and full address of the person dealing with the tender to whom all reference shall be made regarding the tender enquiry. His/her telephone, mobile, Fax and email address |         |
| 6.     | Bank Details (Bank Branch Name, IFSC Code, Account number)                                                                                                                                  |         |
| 7.     | GST Registration number                                                                                                                                                                     |         |

## 6. Evaluation Criteria

- 6.1 The Business Associates are first evaluated on the basis of the Pre-Qualification Criteria as per clause 5 above.
- 6.2 The Business Associate who meets all the Pre-qualification criteria, their price bid will be evaluated. The Lowest (L1) price bidder will be selected and entered into agreement with for delivery of the work on back-to-back basis for the agreed scope of work.
- 6.3 RailTel reserves the right to further re-negotiate the prices with eligible L1 bidder. Selected bidder must ensure the best commercial offer to RailTel to offer the most winnable cost to customer.
- 6.4 RailTel also reserves the right to accept or reject the response against this EOI, without assigning any reasons. The decision of RailTel is final and binding on the participants. The RailTel evaluation committee will determine whether the proposal/ information is complete in all respects and the decision of the evaluation committee shall be final. RailTel may at its discretion assign lead factor to the Business associate as per RailTel policy for shortlisting partner against this EOI. RailTel also reserves the right to negotiate the price with the selected bidder.

- 6.5 All General requirement mentioned in the Technical Specifications are required to be complied. The solution proposed should be robust and scalable.

## 7. Payment terms

- 7.1 RailTel shall make payment to selected Business Associate after receiving payment from Customer for the agreed scope of work. In case of any penalty or deduction made by customer for the portion of work to be done by BA, same shall be passed on to Business Associate.
- 7.2 All payments by RailTel to the Partner will be made after the receipt of payment by RailTel from end Customer organization.

## 8. SLA

The selected bidder will be required to adhere to the SLA matrix if/as defined by the end Customer. SLA breach penalty will be applicable proportionately on the selected bidder, as specified by the end Customer. The SLA scoring and penalty deduction mechanism for in-scope of work area shall be followed as specified by the customer. All associated clarifications, responses to queries, revisions, addendum and corrigendum, associated Prime Services Agreement (PSA)/ MSA/ SLA also included. Any deduction by Customer from RailTel payments on account of SLA breach which is attributable to Partner will be passed on to the Partner proportionately based on its scope of work.

## 9. Other Terms and Conditions

Any other terms and conditions in relation to SLA, Payments, PBG etc. will be as per the PO/agreement/Work Order/RFP of the end customer.

Note: Depending on RailTel's business strategy RailTel may choose to work with Partner who is most likely to support in submitting a winning bid.

Annexure 1: Format for COVERING LETTER  
COVERING LETTER (To be on company letter head)

EoI Reference No:

Date:

To,

RailTel Corporation of India Ltd.  
Plot No. 17, First Floor,  
Raghunath Nagar,  
Near Shahpura Thana,  
Bhopal, M.P. - 462039

Dear Sir,

SUB: Participation in the EoI process

Having examined the Invitation for EoI document bearing the ref. no. \_\_\_\_\_ released by your esteemed organization, we, undersigned, hereby acknowledge the receipt of the same and offer to participate in conformity with the said Invitation for EoI document.

If our application is accepted, we undertake to abide by all the terms and conditions mentioned in the said Invitation for EoI document.

We hereby declare that all the information and supporting documents furnished as a part of our response to the said Invitation for EoI document, are true to the best of our knowledge. We understand that in case any discrepancy is found in the information submitted by us, our EoI is liable to be rejected.

We hereby Submit EMD amount of Rs. \_\_\_\_\_ issued vide \_\_\_\_\_ from Bank \_\_\_\_\_.

Authorized Signatory

Name

Designation

Annexure 2: Format for Self-Certificate & Undertaking  
Self-Certificate (To be on company letter head)

EoI Reference No:

Date:

To,

RailTel Corporation of India Ltd.  
Plot No. 17, First Floor,  
Raghunath Nagar,  
Near Shahpura Thana,  
Bhopal, M.P. - 462039

Dear Sir,

Sub: Self Certificate for Tender, Technical & other compliances

- 1) Having examined the Technical specifications mentioned in this EOI & end customer tender, we hereby confirm that we meet all specification.
- 2) We agree to abide by all the technical, commercial & financial conditions of the end customer RFP for which EOI is submitted (except pricing, termination & risk purchase rights of the RailTel). We understand and agree that RailTel shall release the payment to selected BA after the receipt of corresponding payment from end customer by RailTel. Further we understand that in case selected BA fails to execute assigned portion of work, then the same shall be executed by RailTel through third party or departmentally at the risk and cost of selected BA.
- 3) We agree to abide by all the technical, commercial & financial conditions of the end customer's RFP for the agreed scope of work for which this EOI is submitted.
- 4) We hereby agree to comply with all OEM technical & Financial documentation including MAF, Technical certificates/others as per end-to-end requirement mentioned in the end customer's RFP. We are hereby enclosing the arrangement of OEMs against each of the BOQ item quoted as mentioned end customer's RFP. We also undertake to submit MAF and other documents required in the end Customer organization tender in favour of RailTel against the proposed products.
- 5) We hereby undertake to work with RailTel as per end customer's RFP terms and conditions. We confirm to submit all the supporting documents constituting/ in compliance with the Criteria as

required in the end customer's RFP terms and conditions like technical certificates, OEM compliance documents.

- 6) We understand and agree that RailTel is intending to select a BA who is willing to accept all terms & conditions of end customer organization's RFP for the agreed scope of work. RailTel will strategies to retain scope of work where RailTel has competence.
- 7) We hereby agree to submit that in case of being selected by RailTel as BA for the proposed project (for which EOI is submitted), we will submit all the forms, appendix, relevant documents etc. to RailTel that is required and desired by end Customer well before the bid submission date by end customer and as and when required.
- 8) We hereby undertake to sign Pre-Bid Agreement and Non-Disclosure Agreement with RailTel on a non-judicial stamp paper of Rs. 100/- in the prescribed Format.

Authorized Signatory Name & Designation

Annexure 3: Undertaking for not Being Blacklisted/Debarred

<On Company Letter Head>

To,

RailTel Corporation of India Ltd.  
Plot No. 17, First Floor,  
Raghunath Nagar,  
Near Shahpura Thana,  
Bhopal, M.P. - 462039

Subject: Undertaking for not Being Blacklisted/Debarred

We, Company Name, having its registered office at address  
hereby declares that that the Company has not been blacklisted/debarred by any Governmental / Non-Governmental organization in India for past 3 Years as on bid submission date.

Date and Place

Authorized Signatory's Signature:

Authorized Signatory's Name and Designation:

Bidder's Company Seal:

#### Annexure 4: Format of Affidavit

##### FORMAT FOR AFFIDAVIT TO BE UPLOADED BY BA ALONGWITH THE EOI DOCUMENTS

(To be executed in presence of Public notary on non-judicial stamp paper of the value of Rs. 100/-.  
The paper has to be in the name of the BA) \*\*

I..... (Name and designation) \*\* appointed as the attorney/authorized signatory of the BA (including its constituents),

M/s \_\_\_\_\_ (hereinafter called the BA) for the purpose of the EOI documents for the work of \_\_\_\_\_ as per the EOI No. \_\_\_\_\_ of (RailTel Corporation of India Ltd.), do hereby solemnly affirm and state on the behalf of the BA including its constituents as under:

1. I/we the BA (s), am/are signing this document after carefully reading the contents.
2. I/we the BA(s) also accept all the conditions of the EOI and have signed all the pages in confirmation thereof.
3. I/we hereby declare that I/we have downloaded the EOI documents from RailTel website [www.railtelindia.com](http://www.railtelindia.com). I/we have verified the content of the document from the website and there is no addition, no deletion or no alternation to be content of the EOI document. In case of any discrepancy noticed at any stage i.e. evaluation of EOI, execution of work or final payment of the contract, the master copy available with the RailTel Administration shall be final and binding upon me/us.
4. I/we declare and certify that I/we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
5. I/we also understand that my/our offer will be evaluated based on the documents/credentials submitted along with the offer and same shall be binding upon me/us.
6. I/we declare that the information and documents submitted along with the EOI by me/us are correct and I/we are fully responsible for the correctness of the information and documents, submitted by us.
7. I/we undersigned that if the certificates regarding eligibility criteria submitted by us are found to be forged/false or incorrect at any time during process for evaluation of EOI, it shall lead to forfeiture of the EOI EMD besides banning of business for five years on entire RailTel. Further, I/we (insert name of the BA) \*\* \_\_\_\_\_ and all my/our constituents understand that my/our constituents understand that my/our offer shall be summarily rejected.

8. I/we also understand that if the certificates submitted by us are found to be false/forged or incorrect at any time after the award of the contract, it will lead to termination of the contract, along with forfeiture of EMD/SD and Performance guarantee besides any other action provided in the contract including banning of business for five years on entire RailTel.

DEPONENT SEAL AND SIGNATURE  
OF THE BA

#### VERIFICATION

I/We above named EOI do hereby solemnly affirm and verify that the contents of my/our above affidavit are true and correct. Nothing has been concealed and no part of it is false.

DEPONENT SEAL AND SIGNATURE  
OF THE BA

Place:

Dated:

**\*\*The contents in Italics are only for guidance purpose. Details as appropriate, are to be filled in suitably by BA. Attestation before Magistrate/Notary Public.**

## Annexure-5: Non-Disclosure Agreement (NDA) Format

### NON-DISCLOSURE AGREEMENT

This Non-Disclosure Agreement (this “Agreement”) is made and entered into on this \_\_\_\_ day of \_\_\_, 2024 (the “Effective Date”) at \_\_\_\_\_. By and between

RailTel Corporation of India Limited, (CIN: L64202DL2000GOI107905), a Public Sector Undertaking under Ministry of Railways, Govt. of India, having its registered and corporate office at Plate-A, 6th Floor, Office Block, Tower -2, East Kidwai Nagar, New Delhi-110023, (hereinafter referred to as 'RailTel'), which expression shall unless repugnant to the context or meaning thereof, deem to mean and include its successors and its permitted assignees of the ONE PART,

And

\_\_\_\_\_) (CIN: \_\_\_\_\_), a company duly incorporated under the provisions of Companies Act, \_\_\_\_\_ having its registered office at \_\_\_\_\_, (hereinafter referred to as '\_\_\_\_\_'),

which expression shall unless repugnant to the context or meaning thereof, deem to mean and include its successors and its permitted assignees of OTHER PART

RailTel and \_\_\_\_\_ shall be individually referred to as “Party” and jointly as “Parties”

WHEREAS, RailTel and \_\_\_\_\_, each possesses confidential and proprietary information related to its business activities, including, but not limited to, that information designated as confidential or proprietary under Section 2 of this Agreement, as well as technical and non-technical information, patents, copyrights, trade secrets, know-how, financial data, design details and specifications, engineering, business and marketing strategies and plans, forecasts or plans, pricing strategies, formulas, procurement requirements, vendor and customer lists, inventions, techniques, sketches, drawings, models, processes, apparatus, equipment, algorithms, software programs, software source documents, product designs and the like, and third party confidential information (collectively, the “Information”);

WHEREAS, the Parties have initiated discussions regarding a possible business relationship for \_\_\_\_\_.

WHEREAS, each Party accordingly desires to disclose certain Information (each Party, in such disclosing capacity, the “Disclosing Party”) to the other Party (each Party, in such receiving capacity, the “Receiving Party”) subject to the terms and conditions of this Agreement.

NOW THEREFORE, in consideration of the receipt of certain Information, and the mutual promises made in this Agreement, the Parties, intending to be legally bound, hereby agree as follows:

#### Permitted Use.

Receiving Party shall:

hold all Information received from Disclosing Party in confidence; use such Information for the purpose of evaluating the possibility of entering into a commercial arrangement between the Parties concerning such Information; and restrict disclosure of such Information to those of Receiving Party’s officers, directors, employees, affiliates, advisors, agents and consultants (collectively, the “Representatives”) who the Receiving Party, in its reasonable discretion, deems need to know such Information, and are bound by the terms and conditions of (1) this Agreement, or (2) an agreement with terms and conditions substantially similar to those set forth in this Agreement.

The restrictions on Receiving Party's use and disclosure of Information as set forth above shall not apply to any Information that Receiving Party can demonstrate: is wholly and independently developed by Receiving Party without the use of Information of Disclosing Party; at the time of disclosure to Receiving Party, was either (A) in the public domain, or (B) known to Receiving Party; is approved for release by written authorization of Disclosing Party; or is disclosed in response to a valid order of a court or other governmental body in the India or any political subdivision thereof, but only to the extent of, and for the purposes set forth in, such order; provided, however, that Receiving Party shall first and immediately notify Disclosing Party in writing of the order and permit Disclosing Party to seek an appropriate protective order.

(c) Both parties further agree to exercise the same degree of care that it exercises to protect its own Confidential Information of a like nature from unauthorized disclosure, but in no event shall a less than reasonable degree of care be exercised by either party.

Designation.

Information shall be deemed confidential and proprietary and subject to the restrictions of this Agreement if, when provided in:

written or other tangible form, such Information is clearly marked as proprietary or confidential when disclosed to Receiving Party; or oral or other intangible form, such Information is identified as confidential or proprietary at the time of disclosure.

Cooperation. Receiving Party will immediately give notice to Disclosing Party of any unauthorized use or disclosure of the Information of Disclosing Party.

Ownership of Information. All Information remains the property of Disclosing Party and no license or other rights to such Information is granted or implied hereby. Notwithstanding the foregoing, Disclosing Party understands that Receiving Party may currently or in the future be developing information internally, or receiving information from other parties that may be similar to Information of the Disclosing Party. Notwithstanding anything to the contrary, nothing in this Agreement will be construed as a representation or inference that Receiving Party will not develop products, or have products developed for it, that, without violation of this Agreement, compete with the products or systems contemplated by Disclosing Party's Information.

No Obligation. Neither this Agreement nor the disclosure or receipt of Information hereunder shall be construed as creating any obligation of a Party to furnish Information to the other Party or to enter into any agreement, venture or relationship with the other Party.

Return or Destruction of Information.

All Information shall remain the sole property of Disclosing Party and all materials containing any such Information (including all copies made by Receiving Party) and its Representatives shall be returned or destroyed by Receiving Party immediately upon the earlier of:

termination of this Agreement; expiration of this Agreement; or  
Receiving Party's determination that it no longer has a need for such Information.

Upon request of Disclosing Party, Receiving Party shall certify in writing that all Information received by Receiving Party (including all copies thereof) and all materials containing such Information (including all copies thereof) have been destroyed.

Injunctive Relief: Without prejudice to any other rights or remedies that a party may have, each party acknowledges and agrees that damages alone may not be an adequate remedy for any breach of this Agreement, and that a party shall be entitled to seek the remedies of injunction, specific performance and/or any other equitable relief for any threatened or actual breach of this Agreement

Notice.

Any notice required or permitted by this Agreement shall be in writing and shall be delivered as follows, with notice deemed given as indicated:

by personal delivery, when delivered personally; by overnight courier, upon written verification of receipt; or by certified or registered mail with return receipt requested, upon verification of receipt.

Notice shall be sent to the following addresses or such other address as either Party specifies in writing.

RailTel Corporation of India limited:

Attn: \_\_\_\_\_

Address: \_\_\_\_\_

Phone:

Email.:

Attn: \_\_\_\_\_

Address: \_\_\_\_\_

Phone:

Email:

### Term, Termination and Survivability.

Unless terminated earlier in accordance with the provisions of this agreement, this Agreement shall be in full force and effect for a period of \_\_\_\_years from the effective date hereof.

Each party reserves the right in its sole and absolute discretion to terminate this Agreement by giving the other party not less than 30 days' written notice of such termination.

Notwithstanding the foregoing clause 9(a) and 9 (b), Receiving Party agrees that its obligations, shall:

In respect to Information provided to it during the Term of this agreement, shall survive and continue even after the expiry of the term or termination of this agreement; and not apply to any materials or information disclosed to it thereafter.

Governing Law and Jurisdiction. This Agreement shall be governed in all respects solely and exclusively by the laws of India without regard to its conflicts of law principles. The Parties hereto expressly consent and submit themselves to the jurisdiction of the courts of New Delhi.

Counterparts. This agreement is executed in duplicate, each of which shall be deemed to be the original and both when taken together shall be deemed to form a single agreement

No Definitive Transaction. The Parties hereto understand and agree that no contract or agreement with respect to any aspect of a potential transaction between the Parties shall be deemed to exist unless and until a definitive written agreement providing for such aspect of the transaction has been executed by a duly authorized representative of each Party and duly delivered to the other Party (a "*Final Agreement*"), and the Parties hereby waive, in advance, any claims in connection with a possible transaction unless and until the Parties have entered into a Final Agreement.

Settlement of Disputes:

The parties shall, at the first instance, attempt to resolve through good faith negotiation and consultation, any difference, conflict or question arising between the parties hereto relating to or concerning or arising out of or in connection with this agreement, and such negotiation or consultation shall begin promptly after a Party has delivered to another Party a written request for such consultation.

In the event of any dispute, difference, conflict or question arising between the parties hereto, relating to or concerning or arising out of or in connection with this agreement, is not settled through good faith negotiation or consultation, the same shall be referred to arbitration by a sole arbitrator.

The sole arbitrator shall be appointed by CMD/RailTel out of the panel of independent arbitrators maintained by RailTel, having expertise in their respective domains. The seat and the venue of arbitration shall be New Delhi. The arbitration proceedings shall be in accordance with the provision of the Arbitration and Conciliation Act 1996 and any other statutory amendments or modifications thereof. The decision of arbitrator shall be final and binding on both parties. The arbitration proceedings shall be conducted in English Language. The fees and cost of arbitration shall be borne equally between the parties.

### CONFIDENTIALITY OF NEGOTIATIONS

Without the Disclosing Party's prior written consent, the Receiving Party shall not disclose to any Person who is not a Representative of the Receiving Party the fact that Confidential Information has been made available to the Receiving Party or that it has inspected any portion of the Confidential Information or that discussions between the Parties may be taking place.

## REPRESENTATION

The Receiving Party acknowledges that the Disclosing Party makes no representation or warranty as to the accuracy or completeness of any of the Confidential Information furnished by or on its behalf. Nothing in this clause operates to limit or exclude any liability for fraudulent misrepresentation.

## ASSIGNMENT

Neither this Agreement nor any of the rights, interests or obligations under this Agreement shall be assigned, in whole or in part, by operation of law or otherwise by any of the Parties without the prior written consent of each of the other Parties. Any purported assignment without such consent shall be void. Subject to the preceding sentences, this Agreement will be binding upon, inure to the benefit of, and be enforceable by, the Parties and their respective successors and assigns. its Affiliates to advise their Representatives, contractors, subcontractors and licensees, of the obligations of confidentiality and non-use under this Agreement, and shall be responsible for ensuring compliance by its and its Affiliates' Representatives, contractors, subcontractors and licensees with such obligations. In addition, each Party shall require all persons and entities who are not employees of a Party and who are provided access to the Confidential Information, to execute confidentiality or non-disclosure agreements containing provisions no less stringent than those set forth in this Agreement. Each Party shall promptly notify the other Party in writing upon learning of any unauthorized disclosure or use of the Confidential Information by such persons or entities.

## NO LICENSE

Nothing in this Agreement is intended to grant any rights to under any patent, copyright, or other intellectual property right of the Disclosing Party, nor will this Agreement grant the Receiving Party any rights in or to the Confidential Information of the Disclosing Party, except as expressly set forth in this Agreement.

## RELATIONSHIP BETWEEN PARTIES:

Nothing in this Agreement or in any matter or any arrangement contemplated by it is intended to constitute a partnership, association, joint venture, fiduciary relationship or other cooperative entity between the parties for any purpose whatsoever. Neither party has any power or authority to bind the other party or impose any obligations on it and neither party shall purport to do so or hold itself out as capable of doing so.

## 20: UNPULISHED PRICE SENSITIVE INFORMATION (UPSI)

\_\_\_\_\_ agrees and acknowledges that \_\_\_\_\_, its Partners, employees, representatives etc., by virtue of being associated with RailTel and being in frequent communication with RailTel and its employees, shall be deemed to be "Connected Persons" within the meaning of SEBI (Prohibition of Insider Trading) Regulations, 2015 and shall be bound by the said regulations while dealing with any confidential and/ or price sensitive information of RailTel. \_\_\_\_\_ shall always and at all times comply with the obligations and restrictions contained in the said regulations. In terms of the said regulations, \_\_\_\_\_ shall abide by the restriction on communication, providing or allowing access to any Unpublished Price Sensitive Information (UPSI) relating to RailTel as well as restriction on trading of its stock while holding such Unpublished Price Sensitive Information relating to RailTel

MISCELLANEOUS. This Agreement constitutes the entire understanding among the Parties as to the Information and supersedes all prior discussions between them relating thereto. No amendment or modification of this Agreement shall be valid or binding on the Parties unless made in writing and signed on behalf of each Party by its authorized representative. The failure or delay of any Party to enforce at any time any provision of this Agreement shall not constitute a waiver of such Party's right thereafter to enforce each and every provision of this Agreement. In the event that any of the terms, conditions or provisions of this Agreement are held to be illegal, unenforceable or invalid by any court of competent jurisdiction, the remaining terms, conditions or provisions hereof shall remain in full force and effect. The rights, remedies and obligations set forth herein are in addition to, and not in substitution of, any rights, remedies or obligations which may be granted or imposed under law or in equity. IN WITNESS WHEREOF, the Parties have executed this Agreement on the date set forth above.

\_\_\_\_\_:

RailTel Corporation of India Limited:

By \_\_\_\_\_

By \_\_\_\_\_

Name:

Name:

Title:

Title:

Witnesses

## Annexure-6

Tender – “Appointment of System Integrator for Design, Supply, Installation and Maintenance of CCTV based e-surveillance System at the selected Warehouses of MPWLC On CAPEX and OPEX Model on Rate Contract Basis.”

यह, “रुचि की अभिव्यक्ति” दस्तावेज सूचीबद्ध व्यावसायिक सहयोगियों या OEM या OEM के अधिकृत भागीदार/वितरक में से भागीदार के चयन के लिए “सीसीटीवी आधारित ई-निगरानी प्रणाली के डिजाइन, आपूर्ति, स्थापना और रखरखाव के लिए सिस्टम इंटीग्रेटर की नियुक्ति, दर अनुबंध के आधार पर कैपेक्स और ओपेक्स मॉडल पर व्यावसायिक सहयोगी का चयन।”

इसके बाद अंतिम ग्राहक से आने वाले सभी सूचना/संवाद/नियम चयनित भागीदार पर भी लागू होंगे।

कृपया सम्पूर्ण दस्तावेज को ध्यानपूर्वक पढ़ें एवं जिम्मेदारी पूर्ण तरीके से प्रस्ताव जमा करें।

भवदीय,  
(आनन्द कुमार)  
संयुक्त महाप्रबंधक/विपणन



24-Oct-2025

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MIS Reports

**Tender Details**

**Basic Details**

|                                      |                                          |                                       |           |
|--------------------------------------|------------------------------------------|---------------------------------------|-----------|
| Organisation Chain                   | MP Warehousing and Logistics Corporation |                                       |           |
| Tender Reference Number              | MPWLC/Engineering/2025/4010              |                                       |           |
| Tender ID                            | 2025_MPWLC_458131_1                      | Withdrawal Allowed                    | Yes       |
| Tender Type                          | Open Tender                              | Form Of Contract                      | Item Rate |
| Tender Category                      | Goods                                    | No. of Covers                         | 2         |
| General Technical Evaluation Allowed | No                                       | ItemWise Technical Evaluation Allowed | No        |
| Payment Mode                         | Online                                   | Is Multi Currency Allowed For BOQ     | No        |
| Is Multi Currency Allowed For Fee    | No                                       | Allow Two Stage Bidding               | No        |

**Payment Instruments**

| Online Bankers | S.No | Bank Name          |
|----------------|------|--------------------|
|                | 1    | INDUSIND BANK      |
|                | 2    | INDUSIND NEFT/RTGS |

**Covers Information, No. Of Covers - 2**

| Cover No | Cover Type            | Description     | Document Type |
|----------|-----------------------|-----------------|---------------|
| 1        | Fee/PreQual/Technical | Eligibility Doc | .pdf          |
|          |                       | Other Documents | .pdf          |
| 2        | Finance               | price bid       | .xls          |

Tenders by Location

Tenders by Organisation

Tenders by Classification

Tenders in Archive

Tenders Status

Cancelled/Retendered

Downloads

Debarment List

Announcements

Recognitions

**Tender Fee Details, [Total Fee in ₹ \* - 12,095]**

**EMD Fee Details**

Site compatability



|                                        |        |                 |           |                       |     |
|----------------------------------------|--------|-----------------|-----------|-----------------------|-----|
| Tender Fee in ₹                        | 11,800 | EMD Amount in ₹ | 20,00,000 | EMD Exemption Allowed | No  |
| Processing Fee in ₹ (18.00% GST Incl.) | 295    | EMD Fee Type    | fixed     | EMD Percentage        | NA  |
| Fee Payable To                         | Nil    | Fee Payable At  | Nil       | EMD Payable At        | Nil |
| Tender Fee Exemption Allowed           | No     |                 |           |                       |     |

Work Item Details

|                                      |                                                                                                                                                                                                         |                           |                       |                       |        |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------|-----------------------|--------|
| Title                                | Appointment of System integrator for Design, Supply, Installation and Manitenance of CCTV based e-surveillance System at the selected Warehouse of MPWLC on CAPAX and OPEX model on Rate contract Basis |                           |                       |                       |        |
| Work Description                     | Appointment of System integrator for Design, Supply, Installation and Manitenance of CCTV based e-surveillance System at the selected Warehouse of MPWLC on CAPAX and OPEX model on Rate contract Basis |                           |                       |                       |        |
| NDA/Pre Qualification                | Please refer Tender documents.                                                                                                                                                                          |                           |                       |                       |        |
| Independent External Monitor/Remarks | NA                                                                                                                                                                                                      |                           |                       |                       |        |
| Tender Value in ₹                    | NA                                                                                                                                                                                                      | Product Category          | Electronics Equipment | Sub category          | NA     |
| Contract Type                        | Rate Contract                                                                                                                                                                                           | Bid Validity(Days)        | 180                   | Period Of Work(Days)  | 1095   |
| Location                             | bhopal                                                                                                                                                                                                  | Pincode                   | 462023                | Pre Bid Meeting Place | Bhopal |
| Pre Bid Meeting Address              | MPWLC Head Office Bhopal                                                                                                                                                                                | Pre Bid Meeting Date      | 27-Oct-2025 03:00 PM  | Bid Opening Place     | Bhopal |
| Should Allow NDA Tender              | No                                                                                                                                                                                                      | Allow Preferential Bidder | No                    |                       |        |

Critical Dates

|                                     |                      |                                   |                      |
|-------------------------------------|----------------------|-----------------------------------|----------------------|
| Published Date                      | 17-Oct-2025 09:00 AM | Bid Opening Date                  | 17-Nov-2025 03:00 PM |
| Document Download / Sale Start Date | 17-Oct-2025 11:00 AM | Document Download / Sale End Date | 14-Nov-2025 05:00 PM |
| Clarification Start Date            | NA                   | Clarification End Date            | NA                   |
| Bid Submission Start Date           | 07-Nov-2025 11:30 AM | Bid Submission End Date           | 14-Nov-2025 05:00 PM |

Tenders Documents

| NIT Document | S.No | Document Name      | Description | Document Size (in KB) |
|--------------|------|--------------------|-------------|-----------------------|
|              | 1    | Tendernotice_1.pdf | Notice      | 264.84                |

Download as zip file

| Work Item Documents | S.No | Document Type    | Document Name                                                                                      | Description | Document Size (in KB) |
|---------------------|------|------------------|----------------------------------------------------------------------------------------------------|-------------|-----------------------|
|                     | 1    | Tender Documents | FinalRFP.pdf    | NIT         | 1200.27               |
|                     | 2    | BOQ              | BOQ_538710.xls  | price bid   | 376.50                |

Tender Inviting Authority

|         |                                                                                                                    |
|---------|--------------------------------------------------------------------------------------------------------------------|
| Name    | Managing Director                                                                                                  |
| Address | Office of the Managing Director, Madhya Pradesh Warehousing and Logistics Corporation Gautam Nagar, Bhopall (M.P.) |

Back

Visitor No:3708751

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Portal policies



**Madhya Pradesh Warehousing and Logistics Corporation**

**To be vetted by Department's Legal Expert**

**DRAFT  
Bid Document**

**For**

**Appointment of System Integrator for Design, Supply, Installation and  
Maintenance of CCTV based e-surveillance System at the selected Warehouses of  
MPWLC**

**On**

**CAPEX and OPEX Model on Rate Contract Basis**

**Managing Director  
Madhya Pradesh Warehousing and Logistics Corporation  
Office Complex, Block 'A' Gautam Nagar, Bhopal- 462023  
Phone: +91-755-2600509, 510  
Website: [http://: www.mpwarehousing.mp.gov.in](http://www.mpwarehousing.mp.gov.in)  
Email: [ho@mpwlc.co.in](mailto:ho@mpwlc.co.in)**

## Contents

|                |                                                                                 |           |
|----------------|---------------------------------------------------------------------------------|-----------|
| <b>1.</b>      | <b>Executive Summary .....</b>                                                  | <b>8</b>  |
| <b>2.</b>      | <b>Instructions to the Bidders.....</b>                                         | <b>8</b>  |
| <b>2.1</b>     | <b>Availability of Bid Document .....</b>                                       | <b>8</b>  |
| <b>2.2</b>     | <b>Preparation and Submission of Proposal.....</b>                              | <b>8</b>  |
| <b>2.1.1.</b>  | <b>Completeness of Bids.....</b>                                                | <b>8</b>  |
| <b>2.1.2.</b>  | <b>Language .....</b>                                                           | <b>8</b>  |
| <b>2.1.3.</b>  | <b>Submission of Bid on e-procurement portal.....</b>                           | <b>9</b>  |
| <b>2.1.4.</b>  | <b>Late Bids .....</b>                                                          | <b>9</b>  |
| <b>2.1.5.</b>  | <b>Bid Validity .....</b>                                                       | <b>9</b>  |
| <b>2.1.6.</b>  | <b>Cost and Currency .....</b>                                                  | <b>9</b>  |
| <b>2.1.7.</b>  | <b>Interpretation of the clauses in the Bid Document .....</b>                  | <b>9</b>  |
| <b>2.1.8.</b>  | <b>Amendment of Bid Document .....</b>                                          | <b>9</b>  |
| <b>2.1.9.</b>  | <b>Deviations .....</b>                                                         | <b>9</b>  |
| <b>2.2.</b>    | <b>Bid Data Sheet.....</b>                                                      | <b>10</b> |
| <b>2.2.1.</b>  | <b>CAPEX and OPEX MODEL .....</b>                                               | <b>10</b> |
| <b>2.3.</b>    | <b>Communication .....</b>                                                      | <b>11</b> |
| <b>3.</b>      | <b>QUALIFICATION CRITERIA AND BID EVALUATION .....</b>                          | <b>11</b> |
| <b>3.1.</b>    | <b>Bid Opening .....</b>                                                        | <b>11</b> |
| <b>3.2.</b>    | <b>Bid Evaluation .....</b>                                                     | <b>11</b> |
| <b>3.3.</b>    | <b>1<sup>st</sup> Stage: Minimum Eligibility Criteria .....</b>                 | <b>11</b> |
| <b>3.4.</b>    | <b>2nd Stage: Technical &amp; Financial Evaluation .....</b>                    | <b>14</b> |
| <b>3.5.</b>    | <b>3<sup>rd</sup> Stage: Financial Bid .....</b>                                | <b>16</b> |
| <b>3.6.</b>    | <b>Selection of the L1 Bidder and L1 Rate .....</b>                             | <b>17</b> |
| <b>3.7.</b>    | <b>Award of Work.....</b>                                                       | <b>18</b> |
| <b>3.8.</b>    | <b>Post Award of work to L1 bidder.....</b>                                     | <b>18</b> |
| <b>3.9.</b>    | <b>Failure to Agree with the Terms and Conditions of the Bid Document .....</b> | <b>21</b> |
| <b>3.10.</b>   | <b>Award of Contract .....</b>                                                  | <b>21</b> |
| <b>3.10.1.</b> | <b>Right to Accept Any Proposal and To Reject Any or All Proposal(s).....</b>   | <b>21</b> |
| <b>3.11.</b>   | <b>Confidentiality .....</b>                                                    | <b>22</b> |
| <b>4.</b>      | <b>SCOPE OF WORK .....</b>                                                      | <b>22</b> |
| <b>4.1.</b>    | <b>Features of the Surveillance System .....</b>                                | <b>24</b> |
| <b>4.2.</b>    | <b>Future Integration Provisions .....</b>                                      | <b>25</b> |
| <b>4.3.</b>    | <b>Software &amp; Analytics.....</b>                                            | <b>25</b> |
| <b>4.4.</b>    | <b>Hardware/Software Components .....</b>                                       | <b>25</b> |
| <b>4.4.1.</b>  | <b>NVR with Hard Disks, racks, for last 60 days storage .....</b>               | <b>27</b> |
| <b>4.5.</b>    | <b>Storage .....</b>                                                            | <b>27</b> |
| <b>4.6.</b>    | <b>Design .....</b>                                                             | <b>27</b> |

|               |                                                                                                                              |           |
|---------------|------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>4.7.</b>   | <b>Supply, Installation, Testing and Commissioning of CCTV camera system and accessories with network connectivity .....</b> | <b>28</b> |
| <b>4.7.1.</b> | <b>Testing .....</b>                                                                                                         | <b>28</b> |
| <b>4.7.2.</b> | <b>Delivery &amp; Installation .....</b>                                                                                     | <b>29</b> |
| <b>4.7.3.</b> | <b>Shifting of the CCTV Camera .....</b>                                                                                     | <b>32</b> |
| <b>4.7.4.</b> | <b>Integration .....</b>                                                                                                     | <b>32</b> |
| <b>4.7.5.</b> | <b>Connectivity.....</b>                                                                                                     | <b>32</b> |
| <b>4.7.6.</b> | <b>Copyright .....</b>                                                                                                       | <b>33</b> |
| <b>4.7.7.</b> | <b>Insurance.....</b>                                                                                                        | <b>33</b> |
| <b>4.7.8.</b> | <b>Transportation.....</b>                                                                                                   | <b>33</b> |
| <b>4.7.9.</b> | <b>Inspection.....</b>                                                                                                       | <b>33</b> |
| <b>4.8.</b>   | <b>Maintenance and Support.....</b>                                                                                          | <b>34</b> |
| <b>4.8.1.</b> | <b>Data Safety and Security .....</b>                                                                                        | <b>36</b> |
| <b>4.9.</b>   | <b>Capacity Building including Training of Users.....</b>                                                                    | <b>36</b> |
| <b>4.10.</b>  | <b>Deliverables .....</b>                                                                                                    | <b>37</b> |
| <b>5.</b>     | <b>Exit Management .....</b>                                                                                                 | <b>37</b> |
| <b>6.</b>     | <b>Others .....</b>                                                                                                          | <b>38</b> |
| <b>7.</b>     | <b>SERVICE LEVEL AGREEMENT, TIMELINES AND PENALTIES.....</b>                                                                 | <b>38</b> |
| <b>7.1.</b>   | <b>Operational Activities, Timelines, and penalties .....</b>                                                                | <b>38</b> |
| <b>7.1.1.</b> | <b>Terms of Penalty for Supply and Implementation .....</b>                                                                  | <b>38</b> |
| <b>7.1.2.</b> | <b>Terms of Penalty for Maintenance .....</b>                                                                                | <b>38</b> |
| <b>8.</b>     | <b>PAYMENT TERMS.....</b>                                                                                                    | <b>39</b> |
| <b>9.</b>     | <b>TERMS AND CONDITIONS GOVERNING THE CONTRACT .....</b>                                                                     | <b>39</b> |
| <b>9.1.</b>   | <b>Signing of Contract .....</b>                                                                                             | <b>39</b> |
| <b>9.2.</b>   | <b>Contract Period .....</b>                                                                                                 | <b>39</b> |
| <b>9.3.</b>   | <b>Contract Agreement.....</b>                                                                                               | <b>40</b> |
| <b>9.4.</b>   | <b>Earnest Money Deposit (EMD) .....</b>                                                                                     | <b>40</b> |
| <b>9.5.</b>   | <b>Performance Bank Guarantee (PBG) .....</b>                                                                                | <b>40</b> |
| <b>9.6.</b>   | <b>Transfer / Sub-Contracting : .....</b>                                                                                    | <b>40</b> |
| <b>9.7.</b>   | <b>Termination of Bidder .....</b>                                                                                           | <b>40</b> |
| <b>9.8.</b>   | <b>Liquidated Damages .....</b>                                                                                              | <b>41</b> |
| <b>9.9.</b>   | <b>Limitation of Liability .....</b>                                                                                         | <b>41</b> |
| <b>9.10.</b>  | <b>Corrupt / Fraudulent Practices .....</b>                                                                                  | <b>42</b> |
| <b>9.11.</b>  | <b>Resolution of Disputes.....</b>                                                                                           | <b>42</b> |
| <b>9.12.</b>  | <b>Legal Jurisdiction .....</b>                                                                                              | <b>42</b> |
| <b>9.13.</b>  | <b>Indemnity .....</b>                                                                                                       | <b>42</b> |
| <b>9.14.</b>  | <b>Publicity .....</b>                                                                                                       | <b>43</b> |
| <b>9.15.</b>  | <b>Performance Obligations .....</b>                                                                                         | <b>43</b> |
| <b>9.16.</b>  | <b>Force Majeure.....</b>                                                                                                    | <b>43</b> |

|                 |                                                                                |                                     |
|-----------------|--------------------------------------------------------------------------------|-------------------------------------|
| <b>9.17.</b>    | <b>Right to terminate the process .....</b>                                    | <b>44</b>                           |
| <b>10.</b>      | <b>ANNEXURES .....</b>                                                         | <b>45</b>                           |
| <b>10.1.</b>    | <b>Covering Letter .....</b>                                                   | <b>45</b>                           |
| <b>10.2.</b>    | <b>Material / Equipment Specifications: .....</b>                              | <b>48</b>                           |
| <b>10.2.1.</b>  | <b>Eligible Goods and Services and OEM Criteria .....</b>                      | <b>48</b>                           |
| <b>10.2.2.</b>  | <b>All in One Desktop Computer .....</b>                                       | <b>48</b>                           |
| <b>10.2.3.</b>  | <b>Minimum Specifications of OUTDOOR BULLET CAMERA .....</b>                   | <b>49</b>                           |
| <b>10.2.4.</b>  | <b>Minimum Specifications of OUTDOOR DOME CAMERA .....</b>                     | <b>51</b>                           |
| <b>10.2.5.</b>  | <b>Minimum Specifications of OUTDOOR PTZ CAMERA .....</b>                      | <b>53</b>                           |
| <b>10.2.6.</b>  | <b>Minimum Specifications of 8 CH NETWORK VIDEO RECORDER- NVR.....</b>         | <b>55</b>                           |
| <b>10.2.7.</b>  | <b>Minimum Specifications of 16 CH NETWORK VIDEO RECORDER- NVR.....</b>        | <b>57</b>                           |
| <b>10.2.8.</b>  | <b>Minimum Specifications of 32 NETWORK VIDEO RECORDER- NVR. ....</b>          | <b>58</b>                           |
| <b>10.2.9.</b>  | <b>Minimum Specifications of 64 NETWORK VIDEO RECORDER- NVR. ....</b>          | <b>59</b>                           |
| <b>10.2.10.</b> | <b>FUNCTIONALITY of MINIMUM NETWORK VIDEO RECORDER<br/>FUNCTIONALITY .....</b> | <b>61</b>                           |
| <b>10.2.11.</b> | <b>Indicative Minimum UPS Specification for All in one Desktop .....</b>       | <b>66</b>                           |
| <b>10.2.12.</b> | <b>Specifications for 8 Port PoE switch .....</b>                              | <b>66</b>                           |
| <b>10.2.13.</b> | <b>24 Port 10/100/1000 Switch .....</b>                                        | <b>67</b>                           |
| <b>10.2.14.</b> | <b>24 Port PoE+ Switch .....</b>                                               | <b>68</b>                           |
| <b>10.2.15.</b> | <b>24 port 10/100/1000 PoE+ with 6x10G uplink Port Switch .....</b>            | <b>70</b>                           |
| <b>10.2.16.</b> | <b>10G SFP+ .....</b>                                                          | <b>71</b>                           |
| <b>10.2.17.</b> | <b>1G SFP .....</b>                                                            | <b>71</b>                           |
| <b>10.2.18.</b> | <b>Junction Box .....</b>                                                      | <b>72</b>                           |
| <b>10.2.19.</b> | <b>9U Wall Mount Rack .....</b>                                                | <b>72</b>                           |
| <b>10.2.20.</b> | <b>15U Wall Mount Rack .....</b>                                               | <b>73</b>                           |
| <b>10.2.21.</b> | <b>22U Floor Mount Rack .....</b>                                              | <b>73</b>                           |
| <b>10.2.22.</b> | <b>8 Port PoE Switch .....</b>                                                 | <b>Error! Bookmark not defined.</b> |
| <b>10.2.23.</b> | <b>USB Camera .....</b>                                                        | <b>75</b>                           |
| <b>10.2.24.</b> | <b>OEM Eligibility Criteria for Passive Cabling System .....</b>               | <b>75</b>                           |
| <b>10.2.25.</b> | <b>Cat6 U/UTP Double Jacket Cable .....</b>                                    | <b>75</b>                           |
| <b>10.2.26.</b> | <b>Cat6 24 Modular Straight Patch Panel .....</b>                              | <b>76</b>                           |
| <b>10.2.27.</b> | <b>Cat6 Unshielded Modular Jack .....</b>                                      | <b>76</b>                           |
| <b>10.2.28.</b> | <b>Face Plates .....</b>                                                       | <b>77</b>                           |
| <b>10.2.29.</b> | <b>Cat6 U/UTP Patch Cord .....</b>                                             | <b>78</b>                           |
| <b>10.2.30.</b> | <b>6 Core Armored SM OFC .....</b>                                             | <b>78</b>                           |
| <b>10.2.31.</b> | <b>12/24 Port rack mounted LIU .....</b>                                       | <b>79</b>                           |
| <b>10.2.32.</b> | <b>Fiber Patch Cord .....</b>                                                  | <b>80</b>                           |
| <b>10.2.33.</b> | <b>32" Screen Monitor .....</b>                                                | <b>80</b>                           |
| <b>10.2.34.</b> | <b>Minimum Required Display Specification-43 Inch .....</b>                    | <b>81</b>                           |

|                 |                                                                           |           |
|-----------------|---------------------------------------------------------------------------|-----------|
| <b>10.2.35.</b> | <b>32" Media Converter .....</b>                                          | <b>82</b> |
| <b>10.2.36.</b> | <b>Power SPD .....</b>                                                    | <b>82</b> |
| <b>10.2.37.</b> | <b>Network SPD .....</b>                                                  | <b>82</b> |
| <b>10.2.38.</b> | <b>Specification for 1.5 Sqmm and 2.5 Sqmm Electrical Cable.....</b>      | <b>82</b> |
| <b>10.2.39.</b> | <b>Specification for HDPE Pipe.....</b>                                   | <b>83</b> |
| <b>10.2.40.</b> | <b>Specification for PVC Conduit Pipe 1".....</b>                         | <b>83</b> |
| <b>10.3.</b>    | <b>Affidavit for not being blacklisted by any Government Entity .....</b> | <b>84</b> |
| <b>10.4.</b>    | <b>Format for Queries .....</b>                                           | <b>85</b> |
| <b>10.5.</b>    | <b>Financial Bid Format .....</b>                                         | <b>86</b> |
| <b>i.</b>       | <b>Covering Letter for Financial Bid.....</b>                             | <b>86</b> |
| <b>ii.</b>      | <b>Financial Bid .....</b>                                                | <b>87</b> |
| <b>10.6.</b>    | <b>Statement of No Deviation from the Bid Document Requirements.....</b>  | <b>90</b> |
| <b>10.7.</b>    | <b>Format of Performance Bank Guarantee (PBG) .....</b>                   | <b>91</b> |
| <b>10.8.</b>    | <b>Indicative Document Checklist for submission .....</b>                 | <b>94</b> |

**DEFINITIONS:**

| Definition                                                                          | Meaning                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Managing Director/MD                                                                | Managing Director of MPWLC                                                                                                                                                                                                                                                          |
| Agency/ies /Contractor/ / Service Provider/s/SI/System Integrator/Successful Bidder | Service Provider/s/System Integrator/Successful bidder providing for Design, Supply, Installation and Maintenance of CCTV based e-surveillance System at the selected Warehouses of MPWLC under this Contract                                                                       |
| Services                                                                            | Performance of any of the items of work enumerated in the document including such auxiliary, additional and incidental duties, services and operation as may be indicated by the local authorized representative of the Corporation or any person authorized by him in this behalf. |
| Corporation/MPWLC                                                                   | Madhya Pradesh Warehousing and Logistics Corporation                                                                                                                                                                                                                                |
| CCTV Surveillance system                                                            | IP-based CCTV cameras, Allied accessories, hardware, internet connectivity etc. and its maintenance etc. in all the warehouses, locations etc. of MPWLC in the state of Madhya Pradesh as per the requirement of MPWLC. - CCTV Surveillance system.                                 |

## LIST OF ABBREVIATIONS USED IN THIS DOCUMENT:

| Abbreviation | Full Form of Abbreviation                            |
|--------------|------------------------------------------------------|
| MPWLC        | Madhya Pradesh Warehousing and Logistics Corporation |
| PBG          | Performance Bank Guarantee                           |
| NVR          | Network Video Recorder                               |
| PoE          | Power of Ethernet                                    |
| SFP          | Small Form-Factor Pluggable                          |
| LAN          | Local Area Network                                   |
| WAN          | Wide Area Network                                    |
| MPLS         | Multi-Protocol Label Switching                       |
| SLD          | Straight Line Diagram                                |
| PTZ          | PAN TILT ZOOM                                        |
| CAPEX        | Capital Expenditure                                  |
| OPEX         | Operational Expenditure                              |
| SI           | System Integrator                                    |
| VMS & VA     | Video Management System & Video Analytics            |
| SITC         | Supply, Installation, Testing and Commissioning      |
| EMD          | Earnest Money Deposit                                |
| QIP          | Quality Improvement Plan                             |
| QAP          | Quality Assurance Plan                               |
| ICCC         | Integrated Centralised Command and Control Centre    |

## **1. Executive Summary**

Madhya Pradesh Warehousing & Logistics Corporation (MPWLC) is an autonomous body engaged in scientific storage of agriculture and associated produce in the state of Madhya Pradesh. MPWLC has warehouses established across the State and now intends to install CCTV based e-Surveillance System at the selected Warehouses of MPWLC, phase wise, as per the requirement and the necessary analytics, software, hardware, network connectivity, application, tools and licenses required for the functioning and monitoring of the CCTV based e-surveillance system.

MPWLC, hereby invites Bids from qualified entities having adequate experience, know-hows, technical expertise in the above listed domains and as indicated in the pre-bid eligibility criteria and other criteria of this Bid Document. The details regarding submission of the Bids along with date of pre-bid meeting has been mentioned in Bid Data Sheet.

## **2. Instructions to the Bidders**

While every effort has been made to provide comprehensive and accurate background information, as per requirements and specifications, Bidders must form their own conclusions about the solution needed to meet the requirements. Bidders and recipients of this Bid Document may wish to consult their own legal advisers in relation to this Bid Document.

All information supplied by Bidders may be treated as contractually binding on the Bidders, on successful award of the assignment/project by MPWLC on the basis of this Bid Document.

No commitment of any kind, contractual or otherwise shall exist unless and until a formal written contract has been executed by or on behalf of MPWLC. Any notification of preferred Bidder status by MPWLC shall not give rise to any enforceable rights by the Bidder. MPWLC may cancel this Bid document at any time prior to a formal written contract agreement being executed by or on behalf of MPWLC.

This Bid Document supersedes and replaces any previous public documentation, RFP, corrigendum, annexures & communications, and Bidders should place no reliance on such communications.

This section specifies the procedures to be followed by Bidders in the preparation and submission of their bids. Information is also provided on the submission, opening, and evaluation of bids and on the award of contract. It is important that the bidder carefully reads and examines the Bid Document.

### **2.1 Availability of Bid Document**

Availability of Bid Document Intimation of Bid Document will be available on the website of MPWLC ([www.mpwarehousing.mp.gov.in](http://www.mpwarehousing.mp.gov.in)) and downloadable from MP Government e-procurement portal <http://www.mptenders.gov.in>

### **2.2 Preparation and Submission of Proposal**

#### **2.1.1. Completeness of Bids**

Bidders are advised to study all instructions, annexures, forms, terms and conditions, requirements, and other information in the Bid Document carefully. Submission of bid shall be deemed to have been done after careful study and examination of the Bid Document with full understanding of its implications. The response to this Bid Document should be full and complete in all respects. Failure to furnish the information required by the Bid Document or submission of a proposal not substantially responsive to the Bid Document in every aspect will be at the Bidder's risk and may result in rejection of its proposal. The Bid Document is not transferable to any other Bidder.

#### **2.1.2. Language**

The bid as well as all correspondence and documents relating to the bid exchanged by the bidder and MPWLC, shall be in English only.

### **2.1.3. Submission of Bid on e-procurement portal**

The bidder is responsible for registration on the e-procurement portal at their own cost. The Bidders are advised to go through the e-procurement guidelines and instructions, as provided on the e-procurement website, and in case of any difficulty related to e-procurement process, may contact the helpline number mentioned on their website <http://www.mptenders.gov.in>. The Bidder shall submit the proposals online and are requested to note the following:

- a. Proposal that are incomplete or not in prescribed format will be rejected.
- b. The Minimum Eligibility Criteria along with other criteria, if any, and Financial Bid should be submitted only through the MP Government e-procurement Portal <https://www.mptenders.gov.in> only.
- c. Eligibility Criteria - Scanned copy in pdf file format, signed on each page, with file name clearly mentioning: "Eligibility Criteria Documents for MPWLC NIT No.\_\_\_\_\_".
- d. The Financial Bid would cover all that is required to meet and successfully deliver the scope of work as mentioned in this Bid Document and should be inclusive of all the expenses/costs including applicable levies, duties, cess, fees etc. but excluding GST.
- e. Conditional proposals shall not be accepted on any ground and shall be rejected straightway. If any clarification is required, the same should be obtained before submission of the bids.
- f. Bidders are advised to upload the proposals well before time to avoid last minute issues.
- g. The bid must be submitted only online through website [www.mptenders.gov.in](http://www.mptenders.gov.in). No physical submission of bids would be acceptable.

### **2.1.4. Late Bids**

Proposal after due date and time shall not be accepted.

### **2.1.5. Bid Validity**

The Bid Document offer must be valid for a period of 180 days from the due date of submission of proposal as mentioned in this Bid Document or subsequent corrigendum (if any).

### **2.1.6. Cost and Currency**

The offer must be given in Indian Rupees only. The price will remain fixed for the period of the rate contract (both CAPEX and OPEX) and no changes for any reason whatsoever will be allowed. The bidder shall bear all the costs associated with the preparation and submission of its bid, and MPWLC will in no case be responsible or liable for these costs, regardless of conduct or outcome of bidding process.

### **2.1.7. Interpretation of the clauses in the Bid Document**

In case of any ambiguity in the interpretation of any of the clauses in the Bid Document, by signing this Bid Document, the Bidder agrees to abide by the interpretation of the clauses by Managing Director, MPWLC and which shall be final and binding on the bidder. The decision taken by MD, MPWLC in the process of bid evaluation will be full and final.

### **2.1.8. Amendment of Bid Document**

At any time prior to the deadline for submission of bids, MPWLC for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, may modify / amend the bid documents. Any such communication shall be posted on website and bidders are requested to visit the e-procurement website for updates, modifications, and withdrawal of Offers.

### **2.1.9. Deviations**

The bidder shall not be allowed to make any deviation whatsoever from the terms and condition and technical specifications specified in the Bid Document. All the bidders should submit "No Deviation

Form” as per the format given in Section 9.6. In case of any variation, it shall be bought to the notice of the MD, MPWLC and the discretion of MD, MPWLC shall be final & binding.

## **2.2. Bid Data Sheet**

| <b>Particular</b>                               | <b>Details</b>                                                                                                                                                                                                                                                     |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Client                                          | MP Warehousing and Logistics Corporation                                                                                                                                                                                                                           |
| Address and Concerned Person for Correspondence | Managing Director<br>Madhya Pradesh Warehousing and Logistics Corporation;<br>Office Complex, Block 'A' Gautam Nagar, Bhopal- 462023<br>Phone: +91-755-2600509, 510,<br>Email:ho@mpwlc.co.in                                                                       |
| Point of Contact related to this Bid Document   | Shri S K Jain, Superintendent Engineer, (+91- 755-2600524)                                                                                                                                                                                                         |
| Cost of Bid Document                            | Non-refundable fee of Rs 10,000.00 (Rs Ten Thousand only) & Processing Fee to be paid online through the e-procurement portal.                                                                                                                                     |
| EMD / Bid Security Amount                       | Rs. 20,00,000/- (Rs. Twenty lacs Only) to be paid online through e- procurement portal                                                                                                                                                                             |
| Method of submission of Proposal                | Only through e-Procurement portal                                                                                                                                                                                                                                  |
| Pre-Bid Meeting                                 | As detailed in NIT                                                                                                                                                                                                                                                 |
| Date and time for opening of Bid Documents      | As detailed in NIT                                                                                                                                                                                                                                                 |
| Performance Bank Guarantee                      | 3% of the entire project value should be submitted by Bidder within 15 days of issue of LOI/LOA. The PBG should be issued by a Scheduled / Nationalized Bank in India, in favour of Managing Director, MP Warehousing and Logistics Corporation payable at Bhopal. |
| Bid Validity                                    | Minimum 180 days from the due date of submission of proposal as mentioned in this Bid Document or the subsequent corrigendum (if any)                                                                                                                              |
| Financial Bid                                   | As specified in clause 2.5 and other relevant clauses                                                                                                                                                                                                              |

*Note: All further corrigendum/ addendum shall be uploaded on the e-procurement portal.*

### **2.2.1. CAPEX and OPEX MODEL**

**A. Ratio of Capital Expenditure (CAPEX): Operational Expenditure (OPEX) shall be 85:15**

**B. Release of Payment:**

**1. CAPITAL EXPENDITURE (85% of contract amount/ WO amount)**

- i. 70% payment of CAPEX on complete Supply and Installation of all the items site wise as per the approved design and solution and of all relevant to system component in order to test and commission the entire system, Fixed Components/Hardware/Software/ Networking, Licenses and Surveillance System to different regions/sites/warehouses/locations of MPWLC as per the requirement on a pro-rata basis.
- ii. Go Live – 30% of CAPEX amount subject to satisfactory Go-Live and completion of the project as per the scope mentioned under RFP, including its related corrigendum, annexures etc.
- iii. Payment shall be reimbursed per site wise/location/warehouse wise/WO wise as per required BOQ, on completion of complete scope of work for CAPEX defined in RFP for selected warehouses/sites/locations/regions. The bidder has to submit the detailed BOQ along with invoice along with acceptance certificate from MPWLC competent authority for release of the same.

**2. OPERATIONAL/MAINTAINENCE EXPENDITURE: (15% of the contract amount) for three years, with Equated Half Yearly Payments.**

### 2.3. Communication

- a. Only written communication with / from / between MPWLC and Bidder prior or post award of contract will be valid. All oral / verbal instructions must be recorded, and approval taken be considered as a valid instruction.
- b. All communication shall be addressed to Managing Director, Madhya Pradesh Warehousing and Logistics Corporation.

## 3. QUALIFICATION CRITERIA AND BID EVALUATION

### 3.1. Bid Opening

- a. Bid Opening shall take place through the e-Procurement Portal. A maximum of one representative from each Participating Organization would be allowed to attend the Tender Opening. The Bidder's representative, who may choose to attend the session, should attend the Tender opening on the date and time mentioned in the Bid Data Sheet or as per the Date and Time revised in the subsequent communication given through the e-procurement portal.
- b. To assist in the scrutiny, evaluation, and comparison of offers, the Bidders may be asked for clarification of their offers on any of the points mentioned therein and the same may be sent through email. No change in the prices or substance of the bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered in the evaluation of the bids.

### 3.2. Bid Evaluation

The Bids will be evaluated on Minimum Eligibility Criteria, Scores of Technical & Financial Evaluation and then Financial Bid by a Committee constituted by MPWLC in the following manner:

| S.No | Criteria                                    | Details                                                                                                                                                                                                                                                                                                                                 |
|------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | <b>Minimum Eligibility Criteria</b>         | Bids meeting minimum eligibility criteria will only be shortlisted for technical evaluation                                                                                                                                                                                                                                             |
| 2    | <b>Technical &amp; Financial Evaluation</b> | <ul style="list-style-type: none"> <li>Bidder's work experience shall be reviewed &amp; analysed based on their Client work order / completion certificate, matching with the scope of work mentioned in the Bid Document.</li> <li>Bidder to provide complete work order along with scope of services / terms of reference.</li> </ul> |
| 3    | <b>Financial Bid</b>                        | <ul style="list-style-type: none"> <li>Financial Bids of only those Bidders shall be opened who score <b>minimum of 70 in Technical &amp; Financial Evaluation</b></li> </ul>                                                                                                                                                           |
| 4    | <b>Award of the Tender</b>                  | <ul style="list-style-type: none"> <li>Bidder qualifying the Technical &amp; Financial Evaluation Scoring and having the lowest financial bid (L-1) along with other item wise L1 rates will be awarded the tender.</li> </ul>                                                                                                          |

A three-stage procedure will be adopted in evaluating the proposals as detailed in section 2.3 and 2.4 and 2.5.

### 3.3. 1<sup>st</sup> Stage: Minimum Eligibility Criteria

Documents submitted by Bidder shall be evaluated against stipulated requirements of Minimum Eligibility Criteria. Bids not substantially responsive or having incomplete information shall be rejected. Bidders to ensure submitting support relevant documents properly tagged & numbered.

| S.No | Description          | Minimum Qualifying Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.   | Legal Entity         | <p>a. Proprietorship Firms<br/> b. Partnership Firms registered under Partnership Act 1932<br/> c. Registered under the Companies Act 1956 /2013<br/> d. Limited Liability Company 2008 and must have been in operation for a period of at least 5 (Five) years as of March 31, 2025 registered with requisite Statutory Authorities<br/> e. Public Sector Undertakings/Public Sector Enterprises<br/> f. JV/Consortium not allowed.</p> <p><b>Bidder to submit following documents as applicable:</b></p> <ul style="list-style-type: none"> <li>• Certificate of Incorporation / MoA – AoA of the Company</li> <li>• Duly Seal-Signed Board Resolution, Consent from the partner/s as applicable, and Authority Letter from the Company/Firm/JV/Consortium for submission of bids on the entity's Letter Heads.</li> <li>• Partnership Deed, as applicable</li> <li>• GST Registration certificate</li> <li>• PAN Card</li> <li>• Income Tax returns for preceding three financial years</li> <li>• Other tax certificates (as applicable)</li> </ul> |
| 2.   | Performance Criteria | No record of poor performance or abandoned work and should not have been blacklisted or their contract terminated by Central Govt. / any State Govt. / any Govt. Organization or Department/PSUs/PSEs in India during the last three (03) years from the date of bid submission. Bidder to provide affidavit on a Rs. 500 (Rs Five Hundred) stamp paper in support of the above as per annexure 10.3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 3.   | Annual Turnover      | <ul style="list-style-type: none"> <li>• <b>Minimum Rs. 15 Crores</b> as an average annual turnover of the bidder in the preceding three Financial years i.e. FY25, FY24 and FY23 (In case of non-availability of FY25, potential bidder/s may submit FY24, FY23 and FY22.)</li> <li>• Bidder to submit certificate from their statutory auditor certifying average annual turnover of mentioned 3 financial years supported by Audited B/S and financial statements.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 4.   | Net worth            | Minimum Net-worth requirement as on 31-Mar-2025: should be positive. Bidder to submit the statutory auditor certificate certifying the net-worth as on 31-Mar-2025.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5.   | Project Experience   | <p>The Bidder should have similar experience of atleast one Project having Supply, Installation and Maintenance Or SITC or Supply of CCTV Surveillance/accessories/Drones etc.systems in the last five years from the last date of bid submission.</p> <p><b>Documentary proof to be submitted.</b><br/> Completion Certificates along with Contracts/Agreements/Invoices from clients or relevant documents having number/name mentioned.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 7.   | Local Presence       | <p>The bidder shall have established Office in M.P. for the last three years. Bidder should have MP GST Registration for the last three years from the bid submission date.</p> <p><b>Documentary proof to be submitted.</b><br/> Copy of MP GST Registration</p> <p>The bidder who does not have a Registered Office or Branch Office in Madhya Pradesh at the time of bid submission, they are required to establish office in M.P in the next two months from the date of award of tender. Such Bidders must submit an undertaking to establish the office in M.P.</p> <p>Subsequently later on selected bidder must provide proof of such establishment in Madhya Pradesh before commencement of the assignment. Failure to comply with this requirement may result in termination of the contract.</p>                                                                                                                                                                                                                                             |

| <b>S.No</b> | <b>Description</b>        | <b>Minimum Qualifying Criteria</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.          | MAF                       | <p>The potential bidder must submit authorization certificates from OEM/CCTV Product Company from whom they are willing to procure Cameras and related accessories. MAF to be submitted for CCTV Cameras, NVRs, All In One, switches etc..</p> <p>The complete design, supply, delivery, loading &amp; unloading, installation, implementation, testing, commissioning Integration, handing over, maintenance shall be the sole responsibility of the potential bidder.</p> <ol style="list-style-type: none"> <li>GFR Rules Applicable - A self-declaration on company's/firm's letterhead to be provided for the same.</li> <li>OEM/OEMs Compliance of the offered product (i.e CCTV Cameras, NVRs and Switches) on OEM/OEMs Letterhead/s along with data sheets.</li> <li>Documentary Proof from OEM for MAF to be submitted by bidder.</li> </ol>                                                                                                                                                  |
| 9.          | OEM Presence              | The OEM / CCTV Camera Product & its surveillance accessories Company (major components) should have registered office and service centre & toll free no. in India since at least last 5 years from the bid submission date.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 10.         | ISP requirement           | <p>The Bidder should propose Internet service from valid ISP's having Class A or Class B or NLD license issued by the Department of Telecommunication Government of India as on bid submission date (submit copy of declaration by ISP that the link will be provisioned on dual upstream Connectivity with Manage Service). In case of non-availability of the license copy or declaration of OEM, bidder can provide self-declaration for providing the required license and self-declaration by ISP at as per the requirement at the time of agreement. In case the selected bidder will not be able to provide the requisite document then its bid will be cancelled and another eligible bidder will be invited to match the L1 rates for the required allotted scope of work.</p> <p>ISP should have experience of deploying dual upstream of Internet connectivity for at least one project in the last 5 financial years in any Government/PSU (Please provide copy of PO/WO from the ISP)</p> |
| 11.         | Customer Service          | <p>Bidder should have toll free number for call log.</p> <p>Self-declaration with valid and working toll free number details.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 12.         | Certification Requirement | The bidder must adhere to the rules & regulations/ certificates of BIS, ISO, IS etc. as complied with and ensure to provide its certification as applicable (for e.g ISO 9001:2015, ISO 20000, ISO 27000, ISO 14000, ISO/IEC27001, ISO 29990, ISO 45001 etc.). Bidder should have valid certification on or at the date of submission bid document.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

### 3.4. 2nd Stage: Technical & Financial Evaluation

Bids meeting requirements of 1<sup>st</sup> Stage shall be opened for Technical & Financial Evaluation. Evaluation criteria and scoring/marks basis is detailed below:

| S.No | Minimum Requirements |               | Evaluation Methodology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |
|------|----------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|      | Evaluation Criteria  | Maximum Marks | Score Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Maximum Marks |
| A    | Project Experience   | 70 marks      | <p>The Bidder should have similar experience of having SITC/Supply of IP CCTV Cameras and related accessories/Surveillance systems in single project in the last five years from the date of bid submission.</p> <p>i. Upto 250 Cameras – 10 Marks<br/> ii. &gt;250 Cameras to Less than or equal to 500 Cameras – 15 Marks<br/> iii. &gt;500 Cameras -20 Marks</p> <p>Completion Certificates/Acceptance certificate of executing the order by authorized body along with Contracts/Agreements/Invoices from clients or relevant documents number of cameras mentioned.</p>                                      | 20            |
|      |                      |               | <p>The Bidder should have experience with executing CCTV Surveillance systems/IT/ITes Single project with the government sector/PSUs client/clientele in the last five years from the date of bid submission, of project value:</p> <p>i. &gt; INR 5 crores to less than or equal to INR 15 Crores – 10 Marks<br/> ii. &gt; INR 15 crores to less than or equal to INR 30 Crores – 15 Marks<br/> iii. &gt; INR 30 crs – 20 Marks</p> <p>Completion Certificates/Acceptance certificate of executing the order by authorized body along with Contracts/Agreements/Invoices from clients or relevant documents.</p> | 20            |
|      |                      |               | <p>The Bidder should have similar experience of Projects of implementation/supply of CCTV Cameras and related accessories/ surveillance systems like Drones etc. in the last five years from the date of bid submission.</p> <p>i. One Project – 5 Marks<br/> ii. Two Projects: 10 Marks</p> <p>Completion Certificates/Acceptance</p>                                                                                                                                                                                                                                                                            | 10            |

| S.No | Minimum Requirements |               | Evaluation Methodology                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |               |
|------|----------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|      | Evaluation Criteria  | Maximum Marks | Score Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Maximum Marks |
|      |                      |               | certificate of executing the order by authorized body along with Contracts/Agreements/Invoices from clients or relevant documents.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |               |
|      |                      |               | <p>The OEM should have registered office and service centre &amp; toll free no. in India with the mobile application/Web-based ticketing website for logging calls and obtain service docket /ticket status since at least last 5 years from the bid submission date</p> <ol style="list-style-type: none"> <li>1. = 5 years – 10 marks</li> <li>2. &gt; 5 years to less than or equal to 10 years – 15 Marks</li> <li>3. Above 10 years – 20 Marks</li> <li>d. Relevant documentary proofs along with registered office and service centre of OEM.</li> <li>e. Self-declaration for Toll free number in India and web based ticketing website for logging calls (images/screen shots and URL of website to be provided)</li> </ol> | 20            |
| B    | Financial Evaluation | 20 marks      | <p>Average Annual Turnover should be for the last 03 financial years i.e., FY25, FY24, FY23 (In case of non-availability of FY25, potential bidder/s may submit FY24, FY23 and FY22.):</p> <ol style="list-style-type: none"> <li>i. = INR 15 crs – 10 Marks</li> <li>ii. More than INR 15 Crs to less than or equal to INR 30 Crs – 15 Marks</li> <li>iii. &gt; INR 30 Crs – 20 Marks</li> </ol> <p>Bidder to submit the statutory auditor certificate certifying the average annual turnover of the last three years i.e. FY 25, FY24 and FY23 (In case of non-availability of FY25, potential bidder/s may submit FY24, FY23 and FY22.) along with financial statements - audited B/S and P&amp;L</p>                            | 20            |
| C.   | Certifications       | 10 Marks      | <ol style="list-style-type: none"> <li>1. ISO 9001:2015, ISO 27001:2013 - 5 Marks</li> <li>2. ISO 9001:2015, ISO 27001:2013 and CMMi3 - 7 Marks</li> <li>3.ISO 9001:2015, ISO 27001:2013,CMMi3 &amp; CMMi5- 10 Marks</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 10            |

**Note:**

- Duly Signed Documentary proofs for all the criteria mentioned are required to be submitted in Minimum Eligibility Criteria, Technical and Financial Evaluation which shall be properly indexed & numbered for ease of evaluation. Bidders having minimum eligibility criteria shall be considered for Technical & Financial Evaluation. Technical & Financial Evaluation scoring at least 70 marks shall be considered for opening of Financial Bid.
- During the examination, evaluation, comparison of the bids and qualification of the Bidders, the Bidder maybe asked for a clarification of their bid.
- MPWLC reserves right to visit (or conduct telephonic verification) bidder's customers where such a similar project execution has taken place.

### **3.5. 3<sup>rd</sup> Stage: Financial Bid**

In case, only one firm is eligible for opening of Financial Bid, the Financial Bid shall not be opened, the bids shall be cancelled and MPWLC shall invite fresh bids.

For Financial bid, total quote excluding Goods and Services Tax (GST) shall be considered. GST shall be payable at actuals as on date of invoice submission by the potential bidder.

**Validity of Quoted rates:** The validity of the quoted rates will be 36 months which can be extended up to additional 6 months at one time on mutually agreed terms unless revoked.

The evaluation committee reserves the right to accept or reject a proposal if they determine that the financial bid/s are incomplete, or work cannot be carried out within overall cost of the financial proposal.

Unit rate shall be applicable for including its all required outdoor, weatherproof, and compatible main component and its required accessories during Design, packing, Supply, Delivery, Unloading, Storage, Safety and security, unpacking, Installation, Testing and Commissioning, as per OEM's guidelines and approved drawings and documents, QIP and QAP, complete software, hardware, tools, tackles, instrumentation, skilled man power, supervision, HSE requirements, loading and boarding of manpower, preparing for civil work and road crossing, pass through holes, trenches, foundations, foundation bolts, fabrication, welding, grinding, painting not less than 65 to 95 micron including as per required with basic primer, intermediate and final coat under recommended surface cleaning and weather conditions by paint manufacturer, touch-up finishing of civil work and road crossing as per technically and matching to its original form after installation, proper clamping, tracing, identification marking as per approved termination and cable schedule, removal of debris, shifting left out material in safe place.

All the fittings and accessories or apparatus irrespective whether it is mentioned in RFP but is required for the successful commissioning & smooth functioning of the system as a whole viz. cables, junction boxes, POEs, media converters, connectors, etc. are to be included by bidder in costing of the associated items or in the overall costing, while quoting.

List and Supply Installation, Testing & Commissioning (SITC) of the spares for three years trouble and maintenance free operation and cost of the same on FOR rate basis shall be included in the scope.

The essence of design shall be simplicity, reliability and meeting the objective as mentioned under RFP in order to give long continuous service with high economy and low maintenance cost.

Bidder shall propose the entire system components, items, specifications, installation to the advance and innovative technology available in the market, meeting the minimum specification mentioned in the RFP, without any price escalation to the MPWLC. The entire system shall be designed such that it

will have fail safe arrangement, in case of fault, malfunction of components, break in continuity, jamming, hacking, distributing, blocking etc. by internal or external forces shall give alerts at branch level, etc.

### 3.6. Selection of the L1 Bidder and L1 Rate

The calculation methodology to be followed for purpose of selecting the eligible L1 bidder and the L1 rates would be as follows:

- i. **Selection of Bidder' L1 bidder:** e.g. Suppose 3 bidders submit bids. Once they are eligible bidders based on the Technical Evaluation done, the financial bids will be opened and the calculation methodology to be followed for selection of bidder would be as follows:

| BIDDER 1                                                                                                 | BIDDER 2                                                                                                  | BIDDER 3                                                                                                  |
|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Grand Total of unit rate of all the line items mentioned in "BOQ" Sheet quoted by bidder = Rs.1,50,000/- | Grand Total of unit rate of all the line items mentioned in "BOQ" Sheet quoted by bidder = Rs. 2,00,000/- | Grand Total of unit rate of all the line items mentioned in "BOQ" Sheet quoted by bidder = Rs. 1,30,000/- |

Hence, the Bidder 3 will be selected based on financial quotes provided in Financial Format as the L1 bidder.

\*(Note- The notional cost for the Categories "Components" and "Services" as expressed in the table above is intended purely for explanation purposes only)

- ii. **Selection of L1 rates:** Suppose 3 bidders submit bids and the rates submitted by them for different items are as mentioned in table below. Then the calculation methodology to be followed for selection of the lowest/ contracted rates would be as follows:

| S. No. | Item name         | Bidder 1 | Bidder 2 | Bidder 3 | L1 Rate |
|--------|-------------------|----------|----------|----------|---------|
| 1      | IP Network Camera | 3,000    | 2,500    | 3,500    | 2,500   |
| 2      | PTZ Camera        | 4,000    | 5,000    | 5,500    | 4,000   |

\*(Note- The notional cost for the items as expressed in the table above is intended purely for explanation purposes only)

Hence, based on quoted rates, the L1 rate will be calculated as per the methodology shown above.

- iii. **Price bid Negotiation:** The commercial bid proposals would undergo a negotiation process for the bidders who have successfully completed the Technical Evaluation to get better prices for the community as this is not Low Price (L1) tender process. The bidders who successfully complete the technical evaluation and selected as L1 Bidder, there would be an iteration of price negotiations where the bidder should be made available to pursue this process.
  - a. The L1 rate would be finalized for each of the line items under this RFP individually and based on the finalized rate itself, all the services will have to be provided by the L1 bidder.
  - b. If the L1 bidder does not agree to provide services at the negotiated L1 rates, the MPWLC reserves the right to initiate negotiations with the L2 and L3 bidders, for providing the services at L1 rates of all line items mentioned as per Financial Bid.
  - c. The Bidder who has selected as L1 will be engaged with MPWLC under this RFP, will have to provide services at L1 rate itself.
  - d. The bidder who agrees to provide the services at L1 rates will be selected as 'Most Preferred Bidder' and the contract shall be awarded

- e. The MPWLC reserves the right to reject all bids and initiate a fresh tender process if none of the bidders agree to the negotiated rates or meet the required conditions.
- f. **Abnormally Low Quotes and Bid Failure:**
  - In the event that any bidder quotes a rate for any item that is abnormally low and deemed commercially or technically unfeasible, and no other bidder agrees to match or negotiate at that rate, the bid shall be considered unsuccessful.
  - In such cases, the Earnest Money Deposit (EMD) of the bidder who quoted the unfeasible rate shall be forfeited.
  - MPWLC reserves the right to reject all bids and initiate a fresh tender process to ensure fair competition and sustainable service delivery.

### **3.7. Award of Work**

The contract shall be awarded to the Bidder in the following evaluation manner:

- a. Bidders having minimum eligibility mentioned in 2.3, shall be eligible for technical and financial evaluation.
- b. Technical & Financial Evaluation scoring at least 70 marks shall be considered for opening of Financial Bid.
- c. Financial Bid will be evaluated on the basis of conditions mentioned in section 2.6 and 2.7 and contract shall be awarded.
- d. In the event more than one Bidder provides equal quote/total, then Bidder with higher average annual turnover for three years as listed in Section 2.3 and 2.4 shall be given preference and declared 'Most Preferred Bidder' and contract awarded.
- e. In case, average annual turnover is same, then bidder having higher net worth shall be given preference and declared 'Most Preferred Bidder' and contract awarded.
- f. In case, average annual turnover is same followed by same net worth, then the tender will be cancelled & fresh tender would be called as per discretion of MPWLC.
- g. The Department's competent authority reserves the right to split the award of the Rate Contract into two bidders i.e. L1 and L2 bidder, in proportions deemed appropriate, subject to L2 is agreeing to match the L1 rates for award of the tender and work as per the scope of work of this document.
- h. In the event the successful bidder (L1) withdraws or is not ready for engagement for any reason after opening financial bids, their EMD will be forfeited and not allowed to participate in any future tenders of the Department whether as a stand-alone entity or as a consortium / JV partner.

### **3.8. Post Award of work to L1 bidder**

Following are the activities, documentation but not limited to, the selected bidder needs to undertake before starting of the implementation plan. Submit survey reports, design, layouts, (in both AutoCAD & pdf), SLDs and other related documentation within given time schedule with complete required details such that the related information shall covered in total and maximum revisions shall not cross more than three (03) times for each document:

#### **Design, Planning and Engineering Related Documentation:**

Documents to be submitted by the L-1 bidder before supply, installation, and commissioning Page of work for each of the identified locations for MPWLC.

1. BOQ, technical specification, installation, testing, commissioning and operation manual for all applicable components data sheet and scope of work with execution schedule, complete project and site wise organization chart with name of the responsible authorised personnel to be listed per site basis. Details of site location, district wise with name of location wise and capacity wise for better understanding is provided in the bid and the same shall be referred and the same shall be used in each documentation title block placed on the top cover sheet for documents and at right side lower corner for drawings with unique document number which shall be added as a same text part on every page. Successful Bidder shall visit each site for assessment and designing after getting written permission from authorized MPWLC official.
2. The bidder should submit the technical Brochure and data sheet and OEM/OEMs Compliance of all the offered product (All types of CCTV Cameras, NVRs, JB, cables, Switches, UPS, Workstation, Work-Stations, Screens etc.) on OEM/OEMs Letterhead/s.
3. The documents submitted shall be reviewed & vetted through the committee constituted by the MPWLC. Only after approval from the Committee on the below mentioned documents submitted by the bidder, (Design, Supply, Delivery, Unloading, Storage, Safety, Installation, Testing, Commissioning, Handling Over, etc.) the said work may be initiated location wise. All the related costs (direct & indirect) including manpower shall be in the scope of the bidder.
4. The bidder should adhere to maintain the timelines mentioned in the RFP with quality deliverables as per the scope of work.
5. The designing for CCTV installation at each warehouse may vary from site-to-site due to different sizes, landscape, structure, surrounding etc. The bidder has to assess each of the site/locations individually by visiting and submit the detailed documents as mentioned below. Only after approval by competent authority nominated by MPWLC, the bidder shall start the supply and installation of the work at each of the location.
6. The quantities mentioned in the RFP may change/vary basis the designing & requirement for each of the location and approval from the competent committee constituted by MPWLC. The bidder has to adhere to the acceptance of MPWLC in all aspect and terms & conditions mentioned in the RFP.
7. MPWLC reserved his rights to change the quantity, layout, designing, route, change in sites, setting priority of the sites, or drop complete quantity itself, as per its own discretion and bidder has to adhere to it in all aspects.
8. The pdf and auto CAD drawings provided by MPWLC are for reference purpose only. Successful Bidder need to certify each drawing on actual to assess the layout, dimensions etc. before drawing to any conclusion. AutoCAD drawings, for reference, may be collected from the office of Superintendent Engineer, HO, MPWLC.
9. Bidder shall submit following documents per site to MPWLC nominated single point of contact in soft copy in original format as AutoCAD, MS Office as well as in pdf form by the bidder. Five (05) sets of all documents to be submitted by bidder to MPWLC Office by his own cost of printing, filing, packing, dispatches and collection of reviewed documents from MPWLC office.

| <b>S. No</b> | <b>Description and its all-sub-clauses for all sites as well as overall system.</b>                                                                                                                                                                                        | <b>To be delivered in max. days for each site - T is the date of signing of agreement</b> | <b>Remarks</b> |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------|
| 1.           | Basic and Detail engineering: AutoCAD drawings, system and site wise schematics, layout, sections, plans for CCTV location layout showing coverage per camera as mentioned in the RFP, coverage for PTZ camera etc. along with other requirements as mentioned in the RFP. | T +7 days                                                                                 |                |
| 2.           | System design write-up and list of                                                                                                                                                                                                                                         | T +10 days                                                                                |                |

|      |                                                                                                                                                                                                                                                                                                                                                                |           |  |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--|
|      | equipment, safety, operation, maintenance code and standards and its relevant publication                                                                                                                                                                                                                                                                      |           |  |
| 3.   | Layout and general arrangement drawings of cable route, pole installation (as per site condition/requirement) and marking, control room detailing per site. Typical sectional view of underground laying, road crossing arrangement, and pole grouting procedure cementing drawing.                                                                            | T+15 days |  |
| 4.   | Drafting, typing, formatting, developing, setting, printing, folding, compiling, binding, covering, of all the documents site-wise and its submission to MPWLC for review and approval.                                                                                                                                                                        | T+15 days |  |
| 5.   | Preparing complete BOQ site wise mentioning quantities in numbers, meters, kilograms, units, scheme, system etc. for complete system and to make it operational. Bidder to clearly define the detailed scope of work, supply included in bidder's scope and not included in bidder's scope. Also, MAF of Cameras and other required materials to be submitted. | T+21 days |  |
| 216. | Technical specification and data sheet for all the system required items, equipment, cables, steel conduits, road crossing GI pipe, fixing all type hardware, software, bolts, poles, cabinets, racks, trays etc.                                                                                                                                              | T+21 days |  |
| 7.   | Site wise execution plan and schedule with milestone marked from 0 date to completion period on the bidder's letterhead including the engineering and documentation scope of work. Use of project management tool is preferred for easy of monitoring.                                                                                                         | T+25 days |  |
| 8.   | List of complete work breakdown schedule along with sourcing-internal and outsourcing-external details with responsibility matrix.                                                                                                                                                                                                                             | T+25 days |  |
| 9.   | Preparing shop and execution drawings site wise as per the final approved layout documents and drawings for system installation.                                                                                                                                                                                                                               | T+28 days |  |
| 10.  | Overview block drawing showing clearly system design requirement which are in bidder scope of limit, and which are not considered in bidder scope of limit for the system                                                                                                                                                                                      | T+28 days |  |

|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                   |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------|
|     | to make it operational.                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                   |
| 11. | Site wise organization structure for execution as well as overall organization structure with responsibility matrix on the bidder's letterhead.                                                                                                                                                                                                                                                                                                      | T+28 days                 |                   |
| 12. | Preparing and providing of list of the spares for three years trouble and maintenance free operation and cost of the all the equipment system wise.                                                                                                                                                                                                                                                                                                  | T+30 days                 |                   |
| 13. | Site wise, Site Acceptance Testing (SAT) and Systems Integration Testing (SIT) schedule plan, clearly marking required arrangement, consumables etc. from MPWLC and from bidder with time.                                                                                                                                                                                                                                                           | T+20 days                 |                   |
| 14. | Quality Assurance Plan (QAP) and Quality Improvement Project (QIP) for work execution per site wise along with site plan for HSE related working procedure. Document for conducting QAP and QIP shall be developed by bidder and witnessed by branch manager is included in bidder scope of work.                                                                                                                                                    | T+35 days                 |                   |
| 15. | Weekly project review meeting to be held at MPWLC HO/or as directed by MPWLC on time to-time, noting MOM in soft copy and circulating to all the concerned stakeholders of project Monitoring and sharing of all the resources including issued unpriced PO on OEM, delivery and dispatch instructions, vendors, sub-contractors for all listed project activities without any reservation from bidder side or any other nominated from bidder side. | Complete project duration | For all the sites |
| 16. | Assign and dedicated full time single point contact from bidder as a project manager and team of assisting to him for all the site project work.                                                                                                                                                                                                                                                                                                     | Complete project duration | For all the sites |

### **3.9. Failure to Agree with the Terms and Conditions of the Bid Document**

Failure of the successful bidder to agree with the Terms & Conditions of the Bid Document shall constitute sufficient grounds for the annulment of the proposal or the award, in such event MPWLC would reject the proposal.

### **3.10. Award of Contract**

#### **3.10.1. Right to Accept Any Proposal and To Reject Any or All Proposal(s)**

MPWLC reserves the right to accept or reject any proposal, and to annul the bid process and reject all proposals at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for MPWLC action.

### 3.11. Confidentiality

- a. Any attempt by a Bidder to influence MPWLC in the evaluation of the bids or contract award decisions may result in the rejection of its bid.
- b. If any Bidder wishes to contact MPWLC during/after opening of the Bid to award of contract, they may do so only in writing.
- c. Except as otherwise permitted by this Bid Document (and later Contract Agreement), neither of the parties may disclose to third Parties the contents of this Bid Document (and later Contract Agreement) or any information provided by or on behalf of the other that ought reasonably to be treated as confidential and/or proprietary. Parties may, however, disclose such confidential information to the extent that it: (a) is or becomes public other than through a breach of this Bid Document (and later Contract Agreement), (b) is subsequently received by the receiving party from a third party who, to the receiving party's knowledge, owed no obligation of confidentiality to the disclosing party with respect to that information, (c) was known to the receiving party at the time of disclosure or is thereafter created independently, (d) is disclosed as necessary to enforce the receiving party's rights under this Bid Document (and later Contract Agreement), or I must be disclosed under applicable law, legal process or professional regulations. These obligations shall be valid for a period of three years from the date of termination of the Contract Agreement.

## 4. SCOPE OF WORK

The Bidder supplying the turnkey solution shall be responsible for the complete implementation and commissioning of the solution, as well as its maintenance for project duration. Bidders are encouraged to propose their solution based on an understanding of the project requirements. The project will be implemented at locations for which WO will be provided phase wise across the state of Madhya Pradesh as per the requirement, along with its integration with existing systems of different stakeholders of Department of food, civil supplies and consumer protection, M.P. as per the requirement of MPWLC from time to time. The project involving the supply, installation, testing, Go-live and maintenance of IP-based CCTV cameras, Allied accessories, hardware's, internet connectivity and CCTV Surveillance system in all the warehouses, locations etc. of MPWLC in the state of Madhya Pradesh as per the requirement of MPWLC. The volume of hardware, software, and peripheral accessories may vary, potentially increasing or decreasing, based on actual requirements during the project's implementation.

### A. The scope of work is divided into two parts:

**Part I** includes site wise/WO wise Design, Supply, Delivery, Unloading, Storage, Safety, Installation, Testing, Commissioning, Handling Over, integration design, and implementation of New Surveillance System including defined Analytics, Reports, integration, and Data Storage Management and provisioning for integration with Proposed Command and Control Center in future and all other ancillary activities required to carry out as a part of the scope of work. The goods/components will be delivered at the FOR destination in perfect condition and expenses for the same should be included in the quoted rates by the bidder. Unit rates included with all other expenses FOR site basis and implementation basis.

**Part II** includes site wise/WO wise Maintenance for a period of 3 years from the date of commissioning (rollout/GO LIVE date).

- B. The successful bidder shall ensure complete responsibility, safety & security, required compliance of its manpower used during survey, assessment, design, supply, installation, testing, commissioning, maintenance at all the warehouse/godowns including offices of BM/RM of MPWLC. MPWLC shall have no such responsibility in any case.
- C. The bidder must adhere to the rules, regulations, government guidelines (WDRA, FCI, CWC etc. as applicable), policies, safety measures, certificates of BIS, ISO, IS etc. as required and complied for executing the scope mentioned in RFP. The same may be evaluated by MPWLC,

- as & when required and its decision on neglect/non-adherence to any of the above required rules/regulations/others/etc. by bidder shall be final.
- D. Minimum specifications of hardware's, software's, associated accessories, components, licenses etc. mentioned in the annexure 10.2.
- E. The Technical Architecture has been designed taking into consideration some of the following aspects as guiding principles:
- i. **Scalability** -The proposed system architecture shall be designed to support scalability in all critical technical components to accommodate the evolving needs of MPWLC. The system must support vertical scalability, allowing for expansion in capacity and functionality based on future requirements without requiring fundamental changes to the core infrastructure. There must not be any system-imposed restrictions on the upward scalability in no. of cameras, its associated accessories and its integration with command & control system proposed in future and requirements.
  - ii. There shall be no system-imposed limitations on the upward scalability of the number of cameras, associated accessories, or their integration with the Integrated Centralized Command and Control Centre (ICCC) which shall be proposed by MPWLC in future as per the requirement. The architecture must be flexible and future-ready to ensure seamless enhancement and integration as per MPWLC's operational growth and technological advancements.
  - iii. Main technological components requiring scalability but no limited to are Storage, Bandwidth, Computing Performance (IT Infrastructure), storage, Software/ Application performance and advancement in camera features, number of cameras, NVRs, hardware, licensing etc.
  - iv. Manageability and Security - Ease of configuration, ongoing health monitoring, and failure detection are vital to the goals of scalability, availability, and security and must be able to match the growth of the environment. Network should be auto/manual configurable for various future requirements for the ease of maintenance / debugging.
  - v. Open Standards – System shall use open standards and protocols to the extent possible. The code does not build a dependency on any proprietary software, particularly, through the use of proprietary 'stored procedures' belonging to a specific database product. After completion and handing over of the system the sole owner, authority and governing shall be with MPWLC, rights of any part of any system will remain to the OEM or any other organization at any location, territory, jurisdiction. Complete system shall meet Indian Government Policy for imported items.
- F. Multiple layer monitoring
- i. Local level monitoring at Branch and Regional office by BMs and RMs Or their representatives.
  - ii. Provisions to be made - Second level monitoring will be through integration at Proposed/Existing centralized command and control center (ICCC) in future. The surveillance system should have all kinds of provisions which can integrate all the locations overview using zero bezel gap video wall arrangements.
  - iii. All live video monitoring over LAN/WAN etc. will be optimized based on available bandwidth.
- G. Bidders having locations awarded should comply with all statutory and labor laws, rules, regulations, standards, guidelines and policies of Central/State/Local Government bodies at their own cost. All terms & conditions mentioned in RFP have to be adhered to along with any further suggestions, learnings, suggestions, recommendations etc. made by competent authority of MPWLC from time-to-time as per its discretion.
- H. The proposed CCTV surveillance system must have a data backup capacity of at least 60 days at all Warehouse locations. The system must also have a minimum product warranty of

3 years (camera warranty for 5 years) from the installation date. The bidder will be responsible for maintaining the complete solution for 3 years from the date of commissioning (rollout/GO LIVE date), at all the desired locations. If there is any major damage or issue the bidder must replace the device

- I. Replacement of Damaged Equipment: In the event of any major damage or critical malfunction or repeated failure of any device or component, the bidder shall replace the affected device(s) with new, equivalent or superior equipment at no additional cost to the purchaser. Repair of such devices shall not be acceptable under this clause.
- J. The selected bidder shall be responsible for the comprehensive maintenance of all equipment deployed under this project ensuring optimal performance and minimal downtime throughout the contract period. The bidder shall also deploy adequate and qualified manpower to provide timely field support and resolution of issues at any project location as and when required.
- K. The bidder must complete the entire project, adhering to the tender documents, specifications, drawings, and any site requirements, to the satisfaction provided in the RFP. The bidder is also required to provide comprehensive training to the identified personnel by MPWLC on the operation, preventive maintenance, recording, retrieval of CCTV recordings, and the operating system, at no additional cost. The bidder must continue to provide maintenance and support during the warranty period and resolve any complaints regarding the CCTV system within 24 hours.
- L. The bidder must ensure that the cameras and all related equipment are designed to withstand all weather conditions, including wind, rainfall, hailstorms, and other adverse weather conditions. The work should be executed neatly and tidily to the satisfaction of MPWLC, ensuring no damage to the building during the execution of tasks. Materials used must meet the technical specifications and be of standard quality.

#### **4.1. Features of the Surveillance System**

1. Overall monitoring and surveillance of the Warehouses/godowns through installation of various types of cameras & associated accessories required to cover Entry and Exit Gate, all the shutter/gates of Godowns, office space/labs, accessible roads, boundaries, weighbridge etc., as per requirement at each godown/warehouse. and PTZ cameras for boundary walls for 360 degree views.
2. Performance and picture clarity in low light condition/night-vision by covering the maximum IR distance.
3. Surveillance system should be web-app based solution where LIVE video footage should be visible/supported in all kinds of devices like desktop, mobile phones, TV Screens, tablets from all the cameras in real time mode with no restrictions on number of users, as defined by MPWLC. It should support IOS/Android.
4. Surveillance System should be able to work in case of poor or no connectivity at the field level.
5. Video recording footage stored in NVR hard disc from all the cameras real time.
6. Various features like good picture quality, IR distance, low light/night vision performance, True day/night, Zoom feature etc.
7. Camera firmware - No malicious code embedded chip (Hi Silicon chipset) and not comply to GB28181, GBT 28181 protocol in camera.
8. The system should have provision to integrate it with other applications/systems of MPWLC as per the discretion of MPWLC.
9. The storage should be designed, supply, implement and configured in such a way that it is capable to store & retrieve feeds of all the CCTV cameras in respective site/Location for last 60 days along with the earmarked/flagged feeds by the MPWLC without any additional cost to the MPWLC.
10. Live IP based camera viewing facility should be available either individual or with multiple viewing option. i.e. the user can view any individual or multiple cameras installed remotely

at different godown, Live static IP and require bandwidth will be provided by bidder at end location for smooth operation for Live Viewing and Recording Data back.

#### **4.2. Future Integration Provisions**

1. MPWLC proposes to establish a centralized Integrated Command and Control Centre (ICCC) to enable end-to-end digital integration across its infrastructure in future. The CCTV e-Surveillance System deployed under this project shall be designed to support seamless integration with the ICCC.
2. The CCTV e-Surveillance System, comprising Cameras, Network Video Recorders (NVRs), and all associated devices and components, shall be designed to support seamless integration and shall be fully compatible with the Integrated Centralized Command and Control Centre (ICCC) proposed to be established by MPWLC in the future. All system components must be API-enabled to facilitate standardized integration and centralized monitoring and control functionalities.
3. The bidder shall also be responsible for the integration and ongoing maintenance of the Integrated Command & Control Centre (ICCC), once established by MPWLC, and shall ensure that all deployed systems remain compatible and operationally aligned with the ICCC infrastructure.
4. MPWLC may ask bidder in future during the contract duration to provide rates for design, supply, installation of ICCC equipments and its accessories, tools, softwares, hardware, applications, VMS (though we have asked NVR enabled with some of the features/functionalities which may serve the purpose of monitoring and other requirements), licenses (if required) etc. as per the requirement to establish the ICCC. MPWLC shall constitute a technical committee to decide on the rates, timelines and other terms and conditions. Final decision will be taken by MD, MPWLC for any matter related to design, supply, installation of ICCC.
5. The bidder shall deploy adequate, qualified, and trained manpower to provide timely field support, including troubleshooting and resolution of issues at any project location, as and when required by MPWLC.

#### **4.3. Software & Analytics**

- a) Motion and trip wire analytics Or related features to detect intrusion through analytical panel at warehouse level. Trip wire analytics may be supported where applicable on compatible Dome/Bullet Camera.
- b) The cameras and other accessories and systems etc., should be capable to run the different analytics like Motion Detection and camera tampering, in case of requirement and as per the discretion of MPWLC.
- c) At the time of design, the service provide should propose the design and the number of cameras having motion detection analytics in such a way that it covers all risk areas subject to approval of technical committee and provide alerts as per the defined policy of MPWLC.
- d) Bidder to provide the suitable solution to enable the required email alerts as per the defined configured emails. Minimum Specifications are mentioned in the RFP document.
- e) Data Alert reports along with Dashboards including alerts emails, and other alerts to the nominated/authorized officials of MPWLC at the warehouse level, branch and regional office level, HO Level as well as system level to enable them to act quickly/immediate action.

#### **4.4. Hardware/Software Components**

1. IP based Cameras with IR and night vision technology to cover all the shutters/gates of the godown.
2. PTZ Cameras to cover the boundaries of the mentioned warehouse complex/premises/offices as per the requirement.

3. The bidder shall ensure to cover the entire location/campus/premises of the warehouse/godowns.
4. All in one Desktops, UPS with 3 hours back-up, and other back up arrangements in case of electricity failure and voltage fluctuation.
5. Bidder shall examine and ensure Reliable network connectivity in HO, all Regional and Branch office locations on all defined location of MPWLC. All the expenses related to data for the entire period of maintenance shall be borne by the successful bidder.
6. Adequate computer hardware & associated accessories in all defined Branch offices locations. Video/TV/Computer Screens/Workstations established at every location Branch Office to monitor the surveillance/view feeds simultaneously on screen (as per Annexure 10.8). Provision for integration with proposed/existing ICCC to be made that these can be viewed and managed at proposed ICCC/existing.
7. It shall have provision with all required software/hardware/tools/architecture to have use virtual online platforms for conferencing between HO/BM Office/RM Office.
8. User Based Login System to avoid any unauthorized access. Complete Audit Trail to be stored in the system for audit of activities by various users.
9. Adequate components like All-in-one Computer, UPS, batteries, modem, router, networking devices, LAN/CAT6/OFC/Electrical cabling, switches, MCBs, including laying, tagging, ducting, earthing, conduit pipes, surge protection, network & architecture design, Racks and accessories, Junction box, furniture, and any other devices/accessories like mounting bracket, pole etc. required for the successful & smooth running of envisage solution as mentioned in the RFP are in the scope of bidder/s.
10. Bidders are required to make Adequate arrangements of cameras, its associated software/hardware/accessories/licenses/networking etc., furniture and fixtures, electrical fitting, and other associated accessories to be provided as per requirement & site condition of MPWLC in consultation with BM/RM at each of its Warehouse/godown/Branch and Regional level to ensure seamless functioning & maintenance for the whole contract period. These need to be assessed in advance by the bidder by visiting each of the godown/BM office/RM office/HO.

| S.No | Description                                                                                                                                                                                                                                                                                                                                                | Unit    | Minimum Quantity                                                                     |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------------------------------------------------------------------------------------|
| 1    | All-in-One Desktop Computer with UPS of Three-hour back-up at warehouses. The computers shall be pre-loaded with genuine and licensed Windows 10 professional factory preloaded and other requires software along with camera, mic, software/tools/platform etc. and accessories required for virtual online video conferencing through various platforms. | Set     | One Set at each Warehouse location/Branch Office and at Regional offices             |
| 2    | Licensed anti-virus valid for 3 years                                                                                                                                                                                                                                                                                                                      | Numbers | As per the number of systems                                                         |
| 3    | OEMs are required to mention this in the MAF (Manufacturers' Authorization Forms).                                                                                                                                                                                                                                                                         |         | MAF of Cameras, NVRs, Switches, as applicable are required to be furnished/submitted |

*Note: Refer Annexure 9.2 for detailed minimum specifications of above mentioned and other components. These are indicative minimum specifications, which SI has to adhere to. However, successful bidder may consider providing specification which are in advance to the minimum specifications at his own cost, as per the location requirements, in due consultation with MPWLC.*

**Bidders are advised to visit the sites as mentioned in the Annexure 10.8 for self-assessment before the submission of bids.**

#### **4.4.1. NVR with Hard Disks, racks, for last 60 days storage**

1. The proposed CCTV surveillance system must have a data backup capacity of at least 60 days at all Warehouse locations
2. The proposed NVR/ Video recording System shall provide a complete end-to-end solution for CCTV surveillance application. The local warehouse level office level operator shall be able to view live / recorded video from any camera on the IP Network.
3. The recording system should support viewing of multiple cameras in one screen or viewing of one camera feed on one screen based on user selection, as per the requirement. On display, auto sequencing to bring all feeds and then to pan in and zoom on one or more cameras simultaneously on the screen.
4. Live view at full resolution and recording at 720p @ min. 15 FPS (Frame per Second) at the Warehouse panel hard disk. The recording should have date, time and name of the Warehouse with lat-long location overlays on the screen for post incident analysis.
5. The recording should be configured in such a way, when the storage capacity gets to maximum limit., re-write happens on a first in first out basis without any manual intervention. Cameras should be configured to directly access the local NVR and the storage of NVR. This is to make sure recording happens 24x7.
6. Local Network video recorder will allow video retrieval on emergency. There will be a monitoring and management console at Branch Office/RM Office nominated officials having only privileged user access which can have control of video monitoring, play back and other features.
7. Arrangements to keep NVRs at the local warehouse level/RM/BM office level are in the scope of SI/Service provider only.

#### **4.5. Storage**

NVRs with hard disks to store data up to last 60 days at the local warehouse level. MPWLC shall have the sole discretion to define storage policy of the data and may vary from time-to-time basis.

#### **4.6. Design**

1. SI shall Design the CCTV Network Architecture and other required equipment along-with data flow diagrams, SLD, etc. of every warehouse, location, BM/RM. SI/Successful bidder may consider Network to be design in Ring Topology to provide high availability of the network subject to review and approval of technical committee of MPWLC.
2. Basic, detail design engineering, manufacturing, supply, installation, execution, testing, commissioning, maintenance, handing over of the CCTV system for listed MPWLC sites/locations to the nominated official of MPWLC as per the requirement.
3. Data reports Generation for alerts coupled with emails alerts other alerts to the nominated/authorized officials of MPWLC at the warehouse level as well as system level to enable them to act quickly/immediate action.
4. Bidders may visit the sites/ locations/ warehouse/ godowns of MPWLC as per the requirement for self-assessment before the submission of bids & to estimate/assess the requirements as mentioned in the scope of work. All the expenses related to field visit/survey etc. shall be borne by the bidder and in his own responsibility. The bidder shall coordinate will the contact person of MPWLC as defined by MPWLC before scheduling his visit for the ease of assessment/survey. The site assessment shall be done by the bidder in complete including all required accessories, equipment, available infrastructure, electricity connection, network connections, signal strength, power availability etc. The AutoCAD & pdf drawings made available by the Department are only for reference and bidder to ensure check & assess as per site survey.
5. Bidder to ensure that the entire system in all locations shall meet the objective and goals of CCTV e-surveillance, as a tool for security, meets the objectives of eliminating theft of stored

material, asset protection, security investigations, providing evidence, timely alerts, data reports and deterrence thereby enhance monitoring.

#### **4.7. Supply, Installation, Testing and Commissioning of CCTV camera system and accessories with network connectivity**

Supply, Installing, testing, debugging, integrating and maintenance of all modules of e-surveillance system and conducting training for all categories of HO, Regional and branch offices staff as per the requirement and discretion of MPWLC.

Supply and Installation of high-performance definition IP based CCTV Cameras surveillance system.

##### **1. Placement of Purchase Orders and Delivery Requirements;**

- The tender inviting authority may place multiple purchase orders for Supply, Installation, Testing and Commissioning of CCTV camera system and accessories with network connectivity during the period of 3 years from the date of signing of contract with successful tendered (s).
  - The quantity of items will be as per requirement.
  - The supplier should complete the supply and installation of CCTV camera, and/or accessories wherever required.
2. All the material shall confirm the good working condition as per the local weather, temperature and environmental condition. The product quality must confirm the seismic Zone-IV. Before supply of the material, require test certificate issued by the authorized accredited laboratory not earlier than 3 years must be submitted for pre-dispatch inspection.
  3. The successful bidder has to carry out proper electrical earthing as per the standards at all the warehouse where cameras to be installed. The cost for the earthing will be borne by the bidder.
  4. Subject to the provisions in the bidding document and contract, the goods and related services to be supplied shall be as specified in the bidding document.
  5. Unless otherwise stipulated in the Contract, the scope of supply shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining delivery and completion of the goods and related services as if such items were expressly mentioned in the Contract.
  6. The bidder shall not quote and supply and hardware/ software that is likely to be declared as End of Sale in next 12 months and End of Service/ Support for a period of 3 Years from the last date of bid submission. OEMs are required to mention this in the MAF for all the quoted hardware/ software. If any of the hardware/ software is found to be declared as End of Sale/ Service/ Support, then the bidder shall replace all such hardware/software with the latest ones having equivalent or higher specifications without any financial obligation to the MPWLC. All such cost will be solely borne by the bidder.

##### **4.7.1. Testing**

- i. Factory inspection -Third Party Inspection Agency (TPIA), if required by MPWLC, shall be arranged by vendor/successful bidder to witness performance tests on two randomly selected equipment. TPIA shall also review all the performance test certificates as per QAP.
- ii. Factory & Final Assembled Test (FAT): Integrated FAT shall be conducted at vendor or integrator's works for demonstrating all the performance parameters using randomly selected equipment shall be in the scope of work.
- iii. System Acceptance Test (SAT): Integrated SAT shall be conducted at MPWLC site works for demonstrating all the performance parameters as mentioned in the specifications using randomly selected equipment is included in the scope of work.

- iv. Subject to the conditions of the contract, the delivery of the goods and completion of the related services shall be in accordance with the delivery and completion schedule specified in the bidding document. The details of supply/ shipping and other documents to be furnished by the successful/ selected bidder are specified in the bidding document and/ or contract.
- v. Ensuring implementation across all concerned warehouses / godowns branches and regions and relevant authorities, i.e.
  - a. User Acceptance Test
  - b. UAT Feedback and De-bugging
  - c. Customization, in case of requirement
  - d. Ensuring solution meets all the functional & technical requirements mentioned in the RFP
  - e. Sign offs from respective Stakeholders to GO LIVE
  - f. Rollout of the web-based application across all mentioned MPWLC branch office, RO and HO level.

#### **4.7.2. Delivery & Installation**

1. The contract for the supply can be repudiated at any time by the MPWLC competent authority, if the supplies are not made to his satisfaction after giving an opportunity to the bidder of being heard and recording the reasons for repudiation.
2. The Supplier/ Selected Bidder shall arrange to supply, install, test and commission the ordered materials/ system as per specifications within the specified delivery/ completion period at various departments and/ or their offices/ locations mentioned in the PO/ WO.
3. The SI shall execute fabrication work and fixture required for the installation of the system. The SI shall do site survey, in consultation and with the approval of the particular office in charge.
4. The SI shall make sure that only minimum damage is caused to the structure during installation and shall ensure that all repair work is carried out in consonance with the aesthetics of the premises. The SI shall ensure that minimum damage is caused to the building or to any other component of the office. All damages, including paint work, shall be mended by the SI at their own cost, prior to the commissioning of the system. Accidental damage to CCTV system shall be SI's responsibility.
5. The Successful Bidder carrying out the SITC shall make the system entirely operational for its intended use, by addition of components specific to its make and model even if not specifically mentioned in this document or item list or BOQ without any additional cost to MPWLC.
6. In case of requirement, CCTV cameras may be installed on separate pole of hot dip galvanized with minimum 86 micron coating, to maintain camera height in between 2.5meter to 6.0/7.0 meters or as per site requirement. All the poles shall be provided with spike guard for lightening protection sufficient to protect damage to entire arrangement.
7. All the camera fixing brackets shall be similar to the pole material clamps shall be minimum of M12 diameter or higher. Fixing strips shall be minimum of 6mm thick and above 20mm as per the requirement.
8. Media convertor shall be mounted in the pole itself with IP66 weatherproof type enclosure, pole cabinet, with the brackets manufactured as per the technical used for pole material.
9. All the fixing hardware used in the system shall be as per applicable IS standards & grades.
10. All the cable glands shall be made of brass metal, double compression with weatherproof shrouding over it. Cable above ground shall be laid in GI conduit only and clamping of that conduit on the pipe shall be done by steel ties of suitable length, thickness, and width.
11. The required active and passive components shall be provided by SI.
12. It shall be the responsibility of the Successful Bidder to ensure that:
  - i. The passive components of structured cabling distribution network will be free from manufacturing defects in material and workmanship under normal and proper use.

- ii. All passive components in the structured cabling distribution network shall meet or exceed the relevant component specifications or later version as applicable at the time of installation.
  - iii. The structured cabling distribution network compliant channels will meet or exceed the Guaranteed Channel Performance as per relevant standards in the structured cabling distribution network Performance Specifications in effect at the time of installation.
  - iv. The site equipments and accessories, passive components – cables etc. will be duly certified by OEM for a period of 25 years from the date of issuance of the registration certificate or installation, whichever is earlier, for which they shall submit detailed performance test reports for every IO installed.
  - v. The specifications for items are applied to the following:
    - a. F/UTP CAT6Acable and associated components such as Patch Panels, IOs/RJ45
    - b. Jacks, Patch Cords.
    - c. UTP CAT6 cable and associated components such as Patch Panels, Ios/RJ45 Jacks, Patch Cords.
    - d. Single-Mode fiber optic cable and associated components such as distribution shelves, LIUs, pigtails and patch cords.
    - e. Networking Racks – for termination of networking cables.
  - vi. Complete installation shall be done in accordance with installation practices for a well-structured cabling system, using components from a single OEM to ensure consistent and assured performance. The structured cabling distribution network shall serve as a vehicle for transport of data, video and voice telephony signals over a common network throughout the network. Devices and services that shall run on the passive network shall include, but not limited to, the following:
    - a. Wired LAN access
    - b. Wireless LAN access
    - c. Voice communications servers and IP/SIP end-points
    - d. IP-based CCTV/Surveillance Cameras
    - e. Access Control Controllers
    - f. DDC controllers for IBMS
    - g. Various devices and controllers for AV system
  - vii. Cabling installation for data and voice communications shall originate at networking racks and terminate at IoS terminated at pole or wall at the designed location.
  - viii. Installation, termination and identification of wiring between station outlets and networking distribution rack cabinets and networking distribution racks and main racks, shall be considered part of the system integrator's work.
  - ix. All cables and terminations shall be tested @500 MHz identified, labelled and documented at all locations.
13. On completion of all the works specified in the contract, the bidder along with MPWLC nominated representative shall carryout a work measurement and inspection jointly of the work spots, note the findings, reviews that bidder comply to the works, and observations received from the engineer or his representative. All measuring tools etc. including manpower shall be arranged by the bidder.
14. Successful Bidder to prepare a completion report and submit to the MPWLC representative for his acceptance. The report shall include the findings noted during site inspection, observations of the MPWLC representative, compliance statement and action taken on the observations, request from the successful bidder for issue of completion certificate etc. All the contents of the document shall be properly indexed, spiral bound and required number of copies shall be submitted by the bidder to the MPWLC representative for his approval. MPWLC representative shall review all the submittals and initiate action accordingly as per standard procedure.

15. All fittings and accessories or apparatus which may not have been specifically mentioned in the RFP, but which are necessary and essential for the efficient working of the equipment shall be deemed to have been included in the contract. The essence of design shall be simplicity, reliability and meeting the objective as mentioned under RFP in order to give long continuous service with high economy and low maintenance cost.
16. List and Supply Installation, Testing & Commissioning (SITC) of the spares for three years trouble and maintenance free operation and cost of the same on FOR rate basis shall be included in the scope.
17. Offers must be quoted considering comprehensive onsite warranty. Bidders shall take care of this requirement and include in the scope of work accordingly.
18. Entire design engineering, supply, installation, testing and commissioning shall be done by a single vendor. Hence, it is mandatory to consider prices for all the activities as items.
19. Quotation should be as per RFP minimum specifications/configurations. Offers with higher configuration are acceptable with the details of variation, if any, with due notice & approval from competent authority nominated by MPWLC (may please be mentioned clearly highlighting higher and better configuration), however meeting the minimum requirement. The price for any such variation shall be borne by bidder.
20. Scope of work for all site included and it is bidder's responsibility for the handling and transport of all the parts and materials, storage in covered and safe place, with his own security guard (full time all days) in order up to the actual installation, testing and commissioning at defined locations. The above shall be done in coordination with MPWLC.
21. Construction/Installation power at one point will be provided by MPWLC only for the allotted project work of drilling, cutting machine, hand-held breaker, hand grinder, hand drill machine, welding machine, testing and commissioning of that site, no other outside work allowed in the premises of MPWLC using the power connection. Power Source would be made available at the site location itself, in coordination with concerned BM however the expenses related to enable consumption of power from power source for e.g. laying, ducting, switches etc should be in the scope of successful bidder.
22. Arrangement of Water for drinking or for construction or installation purpose should be in the scope of successful bidder and expenses to be borne by successful bidder.
23. All the equipment & supposed accessories of the surveillance system shall be able to withstand/bear/compatible as per the site location/work environment of the MPWLC godowns dealing majorly with the storage of food grains.
24. All the cabling work should be done in GI pipe for all outdoor and indoor installation work as per site requirement with proper drilling in walls without damaging other construction. It is the responsibility of bidder to handle existing property, fittings, stored material, constructed structure etc. not relevant to the allotted work.
25. Each site branch manager of MPWLC will have authority to provide the written permission to carry out the work every day in the required area duly mentioning type of work.
26. Any type of hot work is not permitted in the warehouse shade area unless it is not avoidable. If it is necessary after discussion with branch manager in writing, necessary portable and suitable fire extinguishers and its operator shall be present from bidder site and its cost included in the scope of work.
27. All the electrical cable connections must be done with the closed plug and socket only; no open taped joints are allowed in the warehouse premises. Bidder is responsible for his deputed man in all respect of their safety, work man compensation and described work conditions under labour law of Indian Government. Successful bidder should ensure all fire and safety precautions and adhere to the guidelines of WDRA, FCI, CWC and GoI etc. during the design, supply, installation, maintenance of the CCTV surveillance system.
28. Road cutting will be required at different places, proper planning shall be done in advance in consultation with branch manager for the execution of work. Vendor shall arrange all tools and tackles.

29. The warranty shall cover all materials and workmanship for the complete maintenance period of 03 years as mentioned in the RFP after delivery of the items, components, and equipment and after its installation & functioning. During the maintenance period, it is the bidder responsibility to ensure that the manufacturer shall furnish replacements for each failed component at no cost to the MPWLC Department.
30. When MPWLC representative notifies the bidder that a component has failed, the bidder shall acknowledge the notification within twenty-four hours and furnish the replacement part within forty-eight hours. Replacement parts must be in stock or readily available for a period at least equal to the warranty period. The MPWLC representative shall be notified of any Items that are no longer of common stock and will render final approval of any alternate source arrangements. The bidder shall be responsible for all the shipping arrangements and costs including fixing at the site.
31. Item for which no rate or price has been entered in will not be paid for by the MPWLC when executed and shall be deemed covered by the other rates and prices in the unit rate quantities.
  - Supported applications, but not limited to the following:
    - i. Ethernet Applications – wired Ethernet and wireless.
    - ii. Data Terminal Equipment (DTE) Power via Media Dependent Interface (MDI)
    - iii. Telecom – BRI, PRI and Digital Subscriber Loop (DSL) Applications
    - iv. Voice, Video and ISDN Applications
    - v. TIA / EIA
    - vi. International Electro technical Commission (IEC)
    - vii. European Committee for Electro technical Standardization (CENELEC)
    - viii. American National Standards Institute (ANSI)
    - ix. Institution of Electrical and Electronics Engineers (IEEE)
    - x. Wherever there is reference to multiple standards and codes, the ones most recent and most stringent shall apply.
    - xi. Guidelines of FCI, WDRA, CWC, building code, NFPA, state regulated act and law etc.
    - xii. Others as applicable

#### **4.7.3. Shifting of the CCTV Camera**

The MPWLC will be free to shift the place of installation within the same city /town/ district/ division. If required in the future, the SI shall also do shifting of the CCTV Camera to the desired location during project tenure as per the MPWLC's requirements; this will include the dismantling of setup, logistics to desired location, installation, testing, commissioning, operationalize including all required material and service charges. The successful/ selected bidder shall provide all assistance, in shifting of the equipment in consultation with MPWLC.

However, if the city/town is changed, additional charges of assistance in shifting and providing maintenance services for remaining period would be decided mutually. All other terms and conditions of contract will remain the same.

#### **4.7.4. Integration**

The SI shall facilitates/support integration of the existing CCTV cameras/systems with the central monitoring stations and other stakeholders as per the requirement. List of existing systems locations will be provided by MPWLC as per the requirement. The SI shall also make provisions to seamlessly share data with another system in the future for upcoming use cases.

#### **4.7.5. Connectivity**

The bidder shall propose Internet services from ISPs holding a valid Class A, Class B, or NLD license issued by the Department of Telecommunications (DoT), Government of India, as on the bid

submission date. The ISP should confirm that the proposed link will be provisioned with dual upstream connectivity under managed service.

Each project location/premises shall be provided with P-to-P / ILL / SME connectivity of not less than 20/30 which can go upto 200 Mbps(as per requirement) bandwidth as per the requirement of the system/solution. The core requirement is to guarantee a 98% uptime for the link.

The bidder shall ensure provision of dual upstream MPLS / P-to-P / SME connectivity between Warehouses and the HO. The System Integrator (SI) shall examine and ensure reliable network connectivity, adequate bandwidth availability.

The bidder shall ensure deployment and maintenance of devices with adequate dual connectivity at all locations. Adequate data speed, service continuity, and performance shall be maintained by the Service Provider. The Selected Implementing Agency (SI)/Bidder shall be responsible for ensuring uninterrupted network connectivity, including provision and maintenance of internet routers, MPLS links, and adequate bandwidth at all designated locations (e.g., Godowns/Warehouses), for the entire duration of the maintenance period.

The SI shall also ensure connectivity between the camera and the respective office network via MPLS, and between the location(s) and MPWLC Bhopal.

All expenses related to internet connectivity, including bandwidth charges, router installation, and data usage, shall be borne by the SI without any additional cost to MPWLC for the entire maintenance period.

At Godown/Warehouse, Internet router and MPLS facility of minimum 30 MBPS or 20 MBPS (as per requirement) bandwidth as per the requirement of the system/solution.

#### **4.7.6. Copyright**

The copyright in all drawings, design documents, source code and other materials containing data and information furnished to the MPWLC by the Supplier/ Selected Bidder herein shall remain vested in the MPWLC, or, if they are furnished to the MPWLC directly or through the Supplier/ Selected Bidder by any third party, including suppliers of materials, the copyright in such materials shall remain vested in such MPWLC.

#### **4.7.7. Insurance**

- a. The goods will be delivered at the destination godown in perfect condition. The Goods supplied under the Contract shall be fully insured against loss by theft, destruction or damage incidental to manufacture or acquisition, transportation, storage, fire, flood, under exposure to weather and delivery at the designated project locations, in accordance with the applicable terms. The insurance charges will be borne by the supplier and Purchaser will not be required to pay such charges if incurred.
- b. The goods will be delivered at the FOR destination in perfect condition.

#### **4.7.8. Transportation**

The supplier/ selected bidder shall be responsible for transport by sea, rail and road or air and delivery of the material in the good condition to the consignee at destination. In the event of any loss, damage, breakage or leakage or any shortage the bidder shall be liable to make good such loss and shortage found at the checking/ inspection of the material by the consignee. No extra cost on such account shall be admissible.

#### **4.7.9. Inspection**

- a. MPWLC or his duly authorized representative shall at all reasonable times have access to the supplier's/ selected bidder's and OEM's premises/ and shall have the power at all reasonable times to inspect and examine the materials and workmanship of the goods/ equipment/

machineries during manufacturing process or afterwards as may be decided. Bidder shall be responsible to coordinate & arrange such visit as per requirement of MPWLC

- b. The selected bidder shall furnish complete address of the premises of his factory or of suppliers or OEM, office, go-down and workshop where inspection can be made, if required, together with name and address of the person who is to be contacted for the purpose.
- c. If required, after successful inspection, it will be selected bidder's responsibility to dispatch and install the equipment at respective locations without any financial liability to the MPWLC. However, supplies when received at respective locations shall be subject to inspection to ensure whether they conform to the specifications and are as per the layout approved by MPWLC.

#### **4.8. Maintenance and Support**

This shall cover the services/support dedicated to the continuous operation of the New Surveillance System at locations as per the requirement post successful implementation of the surveillance system, software, and hardware at all defined branches/locations/warehouses and after acquiring the acceptance certificate of Go-Live from the competency authority of MPWLC, the period of maintenance will be considered. SI has to provide warranty for all the required application, software and hardware, tools, licenses etc. Any replacement, repair, rectification, upgradation in application, software, tools, license, hardware etc. for a defined period of 3 years shall be the whole sole responsibility of the bidder. On completion of the period, the SI will ensure a smooth transition by handing over all software and hardware system, tools, licenses, associated accessories, and related up-to-date documentation as well as providing training to the IT Team/or concerned officials of MPWLC on all technical aspects of the system.

1. Application Support
  2. Incident Management
  3. Software Change & Version Control
  4. Maintain configuration information & System documentation.
  5. Data Safety and Security
- a. After the Installation of the e-Surveillance system at the locations as per the requirement, complete maintenance & costing including any repair, replacement, updation for the 3 years of a maintenance period should be the responsibility of the selected SI.
  - b. Maintenance of Software and hardware including associated accessories, licenses coordinating with OEM for any kind of support and fixing the problem. Troubleshooting Services including maintenance for overall system stabilization, defect resolution, system maintenance, system administration, availability & performance issues, Incident Management, security administration, database administration, User administration and end-user problem resolution.
  - c. Proposed solution and required hardware end of life period shall be minimum period of 3 years with OEM support without any additional cost. For passive components like cable, the warranty and life period shall be minimum of 25 years. Also, the right and ownership of the software and hardware must be transferred to MPWLC at the end of the maintenance period. At the end of maintenance period, the further extension is subject to approval of MPWLC competent authority. It is to be ensured that SI shall be responsible for that any further extension requires complete replacement of Cameras, associated software, licenses and hardware with the new one, along with required hardware, software, tool, license requirement etc. which may hamper the performance of the Surveillance System.
  - d. Adequate technical support to maintain the Surveillance Systems. SI should dedicate one person at its office to monitor, analyse, attend the queries/performance issues/calls of various locations/branches/warehouses of the region/s as per the requirement.
  - e. SI shall be responsible generating and making reports, resolving queries, attending issues, if any, and also responsible for periodic quarterly training or whenever required by MPWLC, to MPWLC Branch/Regional/HO Officials, security guards or any other person authorized by MPWLC for training to ensure smooth operations of the system.

- f. Fortnightly/Monthly and Incidents surveillance reports to be provided by successful bidder to MPWLC authorized staff at BM/RM/HO level.
- g. The bidder shall provide a common helpdesk number, email and online ticket mechanism for addressing any O&M related requirements of MPWLC and shall resolve it within 48 hours of the service request.
- h. Electricity Expenses at the defined locations in annexure 10.8 during the maintenance period shall be borne by MPWLC.

Maintenance of CCTV Cameras & its associated accessories (software, hardware, tools, licenses, network, storage etc.) for 3 years, for its smooth operation as detailed in the RFP which may be extendable to another defined set of years, as per decision of the MD, MPWLC.

The bidder shall have service support office in Madhya Pradesh to provide support service for the complete e-surveillance system including all equipment's, cameras, accessories, software, hardware, tools, licensees, architecture etc. required for smooth function of the task mentioned in the RFP. The bidder shall be responsible for complete Design, Supply, Delivery, Unloading, Storage, Safety, Installation, implementation, integration, Testing, Commissioning, Handling Over, maintenance, replacement, repair, updation etc. as & when required during the OPEX period mentioned in the RFP, at his own cost including Taxes, GST etc.

| <b>S.No</b> | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1           | Regular Software Updates and continual customization of developed software.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 2           | Quarterly audit of computer to ensure that only those hardware and software are running which is necessary for e-Surveillance system. Successful Bidder to ensure no malicious malware or viruses have infested or resided in the computer system across locations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 3           | Integration of other automation initiatives of MPWLC such as existing surveillance system, weighbridge automation etc. and other warehouse data inputs onto the developed dashboard and proposed integrated command & control centre as per the requirement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 4           | Hardware Installation & Software Development, if any, & its implementation and the Maintenance Support for 3 years 1for the CAPEX & OPEX duration post receipt of Work order(Site wise/Workorder wise)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 5           | Software Security testing by 3rd party in consultation with MPWLC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 6           | The dedicated Engineer/s deployed by successful bidder/SI will be responsible for analysing every incident and its report requirement as defined by MPWLC and submit the same to MPWLC official immediately and subsequently also submit detailed report for the same.<br>However, as a practice he shall submit fortnightly/or as per the defined frequency of MPWLC, region-wise/branch wise reports to concerning nominated official of MPWLC at HO for review. The report shall be detailed & elaborated with analytical reports, so that SI can discuss with nominated officials of MPWLC for its further storage/deletion beyond 60 days from NVR storage, as per sole discretion of nominated official from HO in writing.<br>Apart from this bidder to ensure that OEM shall also provide maintenance support at all the regions/branches/locations mentioned by MPWLC for the complete e surveillance system at BM/RM level and command & control center as and when established by MPWLC as mentioned in the scope of work. |

Documentation requirements: Documentation will be supplied and maintained by the bidder during different stages of the project. The documents have to be provided in English and MUST include at least 'User Documentation including user guide and procedures manuals for hardware and software', 'Software installation guide including the configuration of the database', 'Technical Documents', Trouble Shooting document, Installation Manual, Operational Procedures Manual, Acceptance Test Plan' and Other relevant technical documentation.

During course of project implementation or post project completion, the Successful Bidder shall provide all documentation, SOP's and API's including operating and trouble-shooting manual of the implemented system with MPWLC or to an agency directed by MPWLC.

The successful bidder would be required to provide services for any addition automation and additional integration of Surveillance System on the same terms and condition and at same rate as specified in this agreement, as per discretion of MD, MPWLC.

#### **4.8.1. Data Safety and Security**

SI must ensure Safety of Software, data, and Hardware with licenses, wherever required. Anti-virus Management, and keep all system software i.e. OS, antivirus, office applications etc., for NVRs, PCs, computer etc. at Network/Local Control Centre, up to date as by installing regular update and upgrades / patches. Network Centre infrastructure should have including antivirus, anti-spam, and security solutions.

SI is responsible for building Business Continuity Plan and Disaster Recovery Plan in case of contingencies and its interval based half yearly training at all the selected godowns, branches and HO as per the MPWLC requirement.

#### **4.9. Capacity Building including Training of Users**

Capacity building and training is imperative for all levels of MPWLC staff so that they possess adequate skills for usage of the surveillance system. Successful Bidder should ensure to engage, empathize, create awareness and motivate people to use the system.

The Successful Bidder has to undertake necessary training and capacity building activities at different levels of MPWLC to ensure the successful implementation and rollout of the proposed solution at all the concerned branches.

- a. The Successful Bidder shall prepare detailed training plan for the different stakeholders of MPWLC or its representatives.
- b. The training activity by the Successful Bidder shall include User Training, Handholding, Technical Training and Overview Training as required at the MPWLC Head Quarter, Regional Offices, branches and godowns.
- c. The Successful Bidder shall submit the course materials, presentations and any other material used in the training delivery to MPWLC. The Successful Bidder shall provide a detailed online training manual for each function of the proposed System. Hard copy of the training material has to be provided by the Successful Bidder to each participant during the training session, while soft copy is to be uploaded in User Manual Menu of proposed System.
- d. Detailed feedback report regarding each training session has to be submitted by the Successful Bidder to the MPWLC management.
- e. Unless explicitly stated, all Training and Capacity Building sessions are to be conducted at locations as agreed with MPWLC.
- f. Successful Bidder shall ensure providing trainings to nominated security guards of MPWLC at each of the location, so that they are well aware and verse with the functionalities & its associated control, as decided by MPWLC.

#### **4.10. Deliverables**

| <b>S.No.</b> | <b>Deliverable</b>                                                                                  | <b>Timeline (N date considered as Date of Approval of the design/layout/documentation/BOQ site wise by technical committee)</b>               |
|--------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 1            | CCTV e-Surveillance System at all defined locations/Warehouses (godown/branch level/regional level) | N + 3 month                                                                                                                                   |
| 2            | Maintenance of CCTV e-Surveillance System at all defined locations/Warehouses.                      | 36 Months from the date of Go-Live of the complete system installed at the Warehouse/location/office – Work Order wise as per the requirement |

Within 15 days of issue of LOI, the Successful Bidder shall provide detailed action plan with monthly % progress milestones (on cumulative basis) proposed to be achieved. The OPEX payment shall commence from the month just after the successful implementation & commissioning (Go Live) of the complete system including all the godowns/warehouses as mentioned in the scope of work.

#### **5. Exit Management**

Successful Bidder shall provide an Exit Management Plan within 30 days of contract agreement date that shall outline overall process that shall be followed post completion of contract period or on termination of contract. At the time of handing over of the system per site by bidder within five (05) days, complete set of OEM documents, warranty certificates, installation, testing, commissioning, and maintenance manuals, as built drawings and documents, cable and termination schedule, shop drawings shall be handed over to the MPWLC authorized personal and acknowledgment of submission shall be provided for full and final completion certificate from MPWLC. This handing over shall be in digital form in pen drive and as well as in five (05) sets of hard copy duly signed and stamped by bidder.

As Built Drawings preparation & its compilation shall be done by the bidder and shall constitute a permanent record of the works as executed. These shall include all such drawings, schedules, documentation and designs as necessary for a complete understanding of the works and maintenance. The As-Built Drawings shall consist of the fully up-dated versions of the approved numbered with titled construction documents incorporating any additional information which will assist the MPWLC in maintaining the system and if necessary, modifying or extending the works at a later date. These drawings should extend and supplement the information collected and generated during the tenure of the project.

As-Built Drawings shall be provided on durable paper Four (04) sets for reproduction by photocopier. In addition, drawings shall be provided in latest version of AutoCAD software and copy in editable form in solid state device (SSD) reputed make pendrive/s. Other related information such as progress reports, field instruction notes, log-books, completion report etc., but not limited to, shall be provided in hardcopy as well as editable softcopy format (Microsoft Word, Excel, Access, or MS Project).

All assets including software, hardware, licenses, tools, accessories etc. defined under the scope of this RFP shall be sole property of MPWLC irrespective of the termination or exit of the bidder at any point of time.

In case of any kind of exit pre or post competition or termination, the bidder will be entitled rental/payment on the pro-rata basis, as per the decision of MPWLC.

## 6. Others

- a. Equipment from vendors will be considered only when their OEM's have requisite service centers in India as defined in the RFP. Requisite proof to be provided.
- b. **Support from OEM / Technology Partner:** Bidder should provide an undertaking from OEM / Technology Partner as per format attached in Annexure 9.1 confirming service support including spares, software upgrades, etc. shall be made available during warranty period. Bidder should also be responsible for maintaining the sufficient spare parts, cameras and associate equipment and hardware, licenses, inverter and UPS type with 100% redundancy type with dual power, inbuilt all protection boost and float charger with batteries, softwares, tools, stocks up to safety level to ensure the defined service levels during the contract period.
- c. The bidder shall ensure to provide the continuous operation for at least 3 hours for UPS type. Its batteries, accessories, wiring should be capable of functioning to meet the requirements. Any intermediate maintenance, replacement, change as required during the complete contract period shall be in scope of bidder.

## 7. SERVICE LEVEL AGREEMENT, TIMELINES AND PENALTIES

The purpose of this Service Level Agreement (hereinafter referred to as SLA) is to clearly define the levels of service, which shall be provided by the Successful Bidder to MPWLC for the duration of the contract against the stated scope of work. MPWLC shall regularly review and update SLAs and the performance of the services being provided by the Firm and the effectiveness of this SLA as per the requirement. The decision of MD, MPWLC shall be binding in this regard.

The deliverables of Reports and their frequencies and format will be finalized in consultation with the MPWLC and the Successful Bidder on signing of the LOI. Agency would be bound by the deliverable timelines and would be submitting monthly update on the progress of the project with MPWLC.

### 7.1. Operational Activities, Timelines, and penalties

Subject to conditions of Contract, if the Successful Bidder fails to deliver or perform the Services within the period(s) specified in Milestones indicated in Deliverables, competent authority (i.e. MPWLC) shall, without prejudice to its other remedies under the Contract, deduct from the PBG, penalties defined in penalty section.

#### 7.1.1. Terms of Penalty for Supply and Implementation

- a. Successful Bidder shall not be penalized for any delay attributable to MPWLC.
- b. In case an extension of time is given by MPWLC for any of the deliverables mentioned earlier, it will be the responsibility of the Successful Bidder to get the extension formally approved by MPWLC in writing. In absence of approval from competent authority, liability of penalty lies with the Successful Bidder.
- c. Penalty @ 0.50% of contract/WO amount shall be levied per week of delay subject to a maximum of 10% of total contract value after which MPWLC reserves the right to terminate the contract and forfeit the performance guarantee and Successful Bidder shall abide by the same without demur and not contest for any claims.
- d. For administrative delays or any such reason, the timelines can be extended with or without penalties at the discretion of MPWLC.
- e. If at any point of time of partial completion of the project scope by the bidder, the bidder shall finalize the penalty up to 10% of the total project cost as per MPWLC discretion.

#### 7.1.2. Terms of Penalty for Maintenance

- a. Successful Bidder shall respond and resolve service call/query, performance issue call related to hardware and software, within 48 hours except Sunday or Public holidays.

- b. The network outage, security or performance related issues impacting the network availability/performance and leading to unavailability of the services must be resolved within 48 hours except Sunday or Public holidays
- c. Any physical damage to Camera or any other equipment (software, hardware & supported accessories) which will hamper the performance of the CCTV e-surveillance system as mentioned in RFP should be attended and should be replaced/ repaired, as the case may be by the successful bidder, in satisfaction of the MPWLC requirements.
- d. If the query/service call/performance issue will not be resolved in 48 hours then twice of per day OPEX as penalty to be deducted from the half yearly OPEX bill of the potential bidder.

## **8. PAYMENT TERMS**

- a. The successful bidder must get completion certificate of supply and installation of proposed system, software, Hardware/Network, licenses etc. from all the concerned Branch Managers/Regional Managers for the release of next tranche of payment of supply and installation. Post completion certificate, the safety and security of supplied material will be the responsibility of MPWLC.
- b. Inspection and verification by Competent Committee nominated by competent authority of MPWLC after Go-live and before the release of final tranche of payment to bidder.
- c. Cost for Only installed items will be paid by MPWLC, as per site verification by respective BMs.
- d. Billing shall be done and approved for per site basis and complete items shall be supplied as per the approved drawings, documents and BOQ. For example, bidder cannot supply only all the cameras for all sites and claim for billing and payment. The bill must be complete in nature of all the items and equipment & accessories supply quantity.
- e. The Operational expenditure will be paid after Go-Live date for all the warehouse/godowns location/regions.
- f. Successful Bidder shall raise half yearly OPEX invoice along with monthly reports, incidents reports and submit the same to MPWLC Head Office.
- g. Successful Bidder shall submit invoice on or before 05<sup>th</sup> of each subsequent quarter. Payments shall be disbursed by MPWLC as per its process.
- h. Successful Bidder shall not be subject to penalties / delayed payments / invoice nonacceptance due to non-functioning of the e-Surveillance System for reasons not attributable to the Successful Bidder.

## **9. TERMS AND CONDITIONS GOVERNING THE CONTRACT**

### **9.1. Signing of Contract**

- a. The Successful Bidder shall execute an agreement within 15 days of issue of LOI from MPWLC. In exceptional circumstances, on request of the Successful Bidder in writing for extension, MPWLC reserves the right to grant an extension for appropriate period after getting satisfied with the reasons given.
- b. In addition to terms and conditions being mentioned hereunder, all terms and conditions of the Bid Document and corrigendum's issued will also be applicable for the contract.
- c. There shall be agreement between MPWLC and Successful bidder. On failure of execution of the agreement by the successful bidder, the PBG furnished will be forfeited.

### **9.2. Contract Period**

The contract period will be for a period of 3 months for supply and installation of e-Surveillance system from the Date of Approval of Drawings/BOQ sitewise/PO wise etc and 36 months for maintenance of the surveillance system and may be extendable for maximum period of 24 months based on performance and with the consent of MD, MPWLC competent authority. In case of any further expansion of project plan, the contract period may subsequently be decided as per discretion of MPWLC competent authority.

### **9.3. Contract Agreement**

- a. This Bid Document, in totality will be constituted as part of the Contract Agreement. between MPWLC and Successful Bidder.
- b. Successful Bidder shall bear the cost of procuring stamp paper of an amount as specified by Registration and Stamps, Commercial Taxes Department, GoMP.

### **9.4. Earnest Money Deposit (EMD)**

- a. The Bidder shall furnish an Earnest Money Deposit (EMD) as detailed in Bid Data Sheet. Bid Opening shall take place through the e-Procurement Portal. Online Proposals submitted along with the EMD and Tender Fees shall be considered for Bid opening as per the timelines mentioned in the Bid Data Sheet.
- b. No interest shall be payable on EMD under any circumstances.
- c. Unsuccessful Bidder's EMD shall be discharged or returned within 60 (Sixty) days of expiration of the period of proposal validity or after awarding tender to successful Bidder.
- d. In case of successful Bidder, the EMD shall be refunded after the submission of PBG.
- e. If while Submitting Online Tender or EMD or Tender Fee, if due to technical fault, the money is not transferred or transacted to the Bankers or is reverted, MPWLC shall not be responsible for the same. Hence, Bidders are suggested to apply prior to last date, to avoid any technical failures.
- f. The EMD shall be forfeited by MPWLC, on account of one or more the following reasons-
  1. If a bidder withdraws its bid during the period of bid validity
  2. If the bidder fails to sign the agreement in accordance with terms and conditions (Only in case of a successful bidder)
  3. EMD will be forfeited if Bidder will not submit PBG/FDR within 15 Days.
  4. Information given in the proposal is found inaccurate/incomplete

### **9.5. Performance Bank Guarantee (PBG)**

- a. The Bidder shall be required to submit PBG as specified in Bid Data Sheet within 15 days of issue of LOI in the format detailed in Section 9.7
- b. The PBG shall be denominated in the currency of the contract and will be for an amount as mentioned in Bid Data Sheet. All charges with respect to the PBG shall be borne by the Bidder.
- c. The PBG shall be remaining valid six months beyond the life of the contract and or any extensions thereof.
- d. The PBG will be discharged / returned by MPWLC upon being satisfied that there has been due performance of the obligations of the bidder under the contract. However, no interest shall be payable on the performance bank guarantee.
- e. In the event of the Bidder being unable to service the contract for whatever reason, MPWLC will invoke the PBG. MPWLC shall notify the Bidder in writing of the exercise of its right to receive such compensation within 14 days, indicating the contractual obligation(s) for which the Bidder is in default.

### **9.6. Transfer / Sub-Contracting :**

Transfer or Subcontracting is not permitted.

### **9.7. Termination of Bidder**

- a. If the bidder fails to carry out the scope of work in terms of this document within the stipulated period or any extension thereof, as may be allowed by MPWLC, without any valid reasons acceptable to MPWLC, MPWLC may terminate the contract after giving 1 months' notice, and the decision of MD, MPWLC on the matter shall be final and binding on the bidder subject to provision of Clause 9.11. Upon termination of the contract, MPWLC shall be at liberty to get the work done at the risk and expense of the Successful

- Bidder through any other agency, and to recover from the Successful Bidder compensation or damages.
- b. All tax and other statutory dues are to be borne by the bidder. MPWLC shall not reimburse or pay any tax on behalf of the contractor.
  - c. Subject to the provisions mentioned here-under, this Agreement shall terminate at the expiry of the agreement term.
  - d. Either party may terminate this Agreement if the other party breaches the terms of this Agreement and fails to rectify it within 30 days of receiving notice of breach.
  - e. Party with the consent of the other party can terminate this Agreement by giving 30 days written notice.
  - f. MPWLC reserves the right to terminate the contract in case Bidder is or gets blacklisted by the Government of Madhya Pradesh, or any other Department / Ministry of Government of India during the course of Project or if the Bidder is convicted in a legal/tax evasion case or on account of any other legal misconduct of the Bidder.
  - g. In the event MPWLC terminates this Agreement due to the breach of the Bidder as per the conditions of this agreement, the MPWLC shall be entitled to invoke the Performance Bank Guarantee.
  - h. MPWLC may, at any time, terminate the engagement by giving 30 days written notice to the Bidder without any compensation (if the Bidder becomes bankrupt or otherwise insolvent), provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to MPWLC.
  - i. The engagement of the Bidder shall be suspended, and the Bidder may be blacklisted forthwith by the MPWLC under following circumstances/reasons:
    - i. Violation of any condition of the tender/ contract or part of any condition of the tender contract of engagement, or
    - ii. On finding software being used is pirated, or
    - iii. If it is found that during the process of award of contract, fraudulence was made by the Bidder or the Bidder if found to resort to the fraudulent practice in getting supply order like offering incentive in terms of free product or money.
  - j. Before taking final decision on the matter, all concerned will be given reasonable opportunities to explain their stand. After enquiry, if the Bidder is found guilty, the engagement of the concerned Bidder for the services in question can be cancelled and other appropriate legal action shall also be initiated against all concerned. In case of any dispute, the decision of the Managing Director, MPWLC shall be final and binding.
  - k. MPWLC may at any time terminate the Contract by giving a written notice of at least 30 days to the Successful Bidder, if the Successful Bidder becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Successful Bidder, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to MPWLC.

## **9.8. Liquidated Damages**

In the event of delay or any gross negligence in implementation of the project, for causes solely attributable to the Successful Bidder, in meeting the deliverables, MPWLC shall be entitled at its option to recover from the Successful Bidder as agreed, liquidated damages, a sum of 0.5% of the value of the Total Contract Value for delay or gross negligence for each completed week or part thereof, subject to a limit of 10% of the total contract value. This right to claim any Liquidated Damages shall be without prejudice to other rights and remedies available to MPWLC under the contract and law.

## **9.9. Limitation of Liability**

The maximum aggregate liability of Successful Bidder shall not exceed the total contract value for the entire contract period.

### **9.10. Corrupt / Fraudulent Practices**

- a. MPWLC requires that the Bidders under this tender should observe the highest standards of ethics during the procurement and execution of such contracts. In pursuance of this policy, MPWLC defines the terms set forth as follows:
- b. "Corrupt Practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of the public official in the award of the contract, procurement process or in contract execution.
- c. In the event of corrupt practice and fraudulence in addition to penal action as per the terms and conditions of the contract, legal action shall also be initiated against the concerned.
- d. "Fraudulent practice" means a misrepresentation of facts in order to influence award of contract or a procurement process or an execution of a contract to the detriment of MPWLC and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive MPWLC of the benefits of the free and open competition.
- e. MPWLC will suspend the award of contract if prima-facie it is established that the bidder had engaged in corrupt or fraudulent practices in competing for the contract in question.
- f. MPWLC will declare a Bidder ineligible after giving opportunity of being heard, either indefinitely or for a stated period of time, to be awarded a contract if at any time it is found that the Bidder has engaged in corrupt and fraudulent practices in competing for, or in executing, this contract.

### **9.11. Resolution of Disputes**

- a. MPWLC and the successful bidders shall make every effort to resolve amicably by direct informal negotiation, any disagreement or dispute, arising between them under or in connection with the contract.
- b. Any dispute or difference whatsoever arising between the parties to this Contract out of or relating to the meaning, scope, operation or effect of this Contract or the validity of the breach thereof, which cannot be resolved, shall be referred to Arbitration as per supreme court guidelines and should be mutual Arbitration as per Arbitration and Conciliation Act 1996. The Arbitration proceedings will be held at Bhopal, Madhya Pradesh, India, and the Successful Bidder shall unconditionally abide by this clause.
- c. The Successful Bidder shall have to continue execution of the project with due diligence notwithstanding pendency of a dispute before any authority or forum.

### **9.12. Legal Jurisdiction**

This contract has been entered into the State of Madhya Pradesh and its validity, execution, interpretation, and legal effect shall be subjected to the exclusive jurisdiction of the courts in Bhopal. No other jurisdiction shall be applicable.

### **9.13. Indemnity**

1. The Successful Bidders/Bidder shall indemnify, protect and save MPWLC (including all its employees and associated departments) against all claims, losses, costs, damages, expenses, action suits and other proceeding, resulting from infringement of any patent, trademarks, copyrights etc. or such other statutory infringements in respect of all components (like system software, software tools, hardware, use of pirated software, etc.) and the services rendered under this tender.
2. Notwithstanding anything contained in this agreement, if the Indemnified Party promptly notifies Indemnifying Party in writing of a third-party claim against Indemnified Party that any Service provided by the Indemnifying Party infringes a copyright, trade secret or patents incorporated in India of any third party, Indemnifying Party will defend such claim

- at its expense and will pay any costs or damages, that may be finally awarded against Indemnified Party.
3. Indemnifying Party will not indemnify the Indemnified Party, however, if the claim of infringement is caused by: a) Indemnified Party's misuse or modification of the Service; b) Indemnified Party's failure to use corrections or enhancements made available by the Indemnifying Party; c) Indemnified Party's use of the Service in combination with any product or information not owned or developed by Indemnifying Party; However, if any service, information, direction, specification or materials provided by Indemnified Party or any third party contracted to it, is or likely to be held to be infringing, Indemnifying Party shall at its expense and option either: (i). Procure the right for Indemnified Party to continue using it; (ii). Replace it with a non-infringing equivalent; (iii.) Modify it to make it non-infringing.
  4. The foregoing remedies constitute Indemnified Party's sole and exclusive remedies and Indemnifying Party's entire liability with respect to infringement.

#### **9.14. Publicity**

Any publicity by the bidder in which the name of the Indenter/buyer is to be used should be done only with the explicit written permission of the Indenter/buyer.

#### **9.15. Performance Obligations**

While providing services as per Scope of Work, the Successful Bidder shall ensure that there is no infringement of any patent or design rights or violate any intellectual property or other right of any person or entity and shall comply with all applicable Laws, Statute, regulations and Governmental requirements and he/she shall be solely and fully responsible for consequence / any actions due to any such infringement.

#### **9.16. Force Majeure**

Force Majeure would include natural and unavoidable catastrophe that interrupts the expected course of events.

- a. For purposes of this clause, "Force Majeure" means an event beyond the control of both the parties (Govt. & Bidder) and not involving the both the parties and not involving the fault of both the parties or negligence and not foreseeable. Such events may include, but are not restricted to, instances of, wars or revolutions, fires, floods, epidemics, complete lockdown due to pandemic, quarantine restrictions and freight embargoes which would have an impact on both the parties.
- b. If a Force Majeure situation arises, any of the parties shall promptly notify the other in writing of such conditions and the cause thereof. Unless otherwise directed by, the bidder shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- c. MPWLC may also discuss the issue with the Bidder and revise the existing timelines for the Project. If the Bidder does not complete the Project Implementation in accordance with the revised timelines, MPWLC will have the option to invoke the Performance Guarantee and/or terminate this Agreement.
- d. If an event of Force Majeure continues for a period of sixty (60) days or more, the parties may, by mutual agreement, terminate the Contract without either party incurring any further liabilities towards the other with respect to the Contract, other than to effect payment for services already delivered or performed.
- e. The Force Majeure circumstances and events shall include the following events to the extent that such events or their consequences (it being understood that if a causing event is within the reasonable control of the affected party, the direct consequences shall also be deemed to be within such party's reasonable control) satisfy the appropriate definition as per this agreement. Without limitation to the generality of the foregoing,

Force Majeure Event shall include the following classes of events and circumstances and their effects:

- i. Natural events ("Natural Events") to the extent they satisfy the foregoing requirements including:
  - Any material effect on the natural elements, including lightning, fire, earthquake, cyclone, flood, storm, tornado, or typhoon.
  - Explosion or chemical contamination (other than resulting from an act of war);
  - Epidemic such as plague.
  - Any event or circumstance of a nature analogous to any of the foregoing
- ii. Other Events (Political Events) to the extent that they satisfy the foregoing requirements including:
  - Act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, civil commotion, act of terrorism or sabotage.
  - An act of Government
  - Strikes, work to rules, go-slows which are either widespread, nation-wide, or state-wide and are of political nature;
  - Any event or circumstance of a nature analogous to any of the foregoing

#### **9.17. Right to terminate the process**

- a. MPWLC, reserves the right to accept or reject any tender offer, and to annul the tendering process and reject all tenders at any time prior to award of control, without thereby incurring any liability to the affected bidder(s) or any obligation to inform the affected bidder(s) of the grounds for such action. The decision of MD, MPWLC shall be final and binding.
- b. MPWLC makes no commitments, explicit or implicit, that this process will result in a business transaction with anyone. Further, this Bid Document does not constitute an offer by MPWLC.

## 10. ANNEXURES

### 10.1. Covering Letter

To

Managing Director,  
Madhya Pradesh Warehousing and Logistics Corporation  
Office Complex, Block 'A', Gautam Nagar,  
Bhopal- 462023. Madhya Pradesh

**Sub:** Submission of Eligibility Criteria requirements

**Ref:** Appointment of System Integrator for Design, Supply, Installation and Maintenance of CCTV based e-surveillance System at the selected Warehouses of MPWLC on CAPEX and OPEX Model on Rate Contract Basis (NIT No: \_\_\_\_\_ Dated: \_\_/\_\_/\_\_)

Dear Sir,

Having examined the Bid Document, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the scope of services, as required and outlined in the Bid Document.

We attach hereto our responses to Eligibility Criteria requirements.

We confirm that the information contained in these responses or any part thereof, including the exhibits, and other documents and instruments delivered or to be delivered to MPWLC is true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead the department in its short-listing process.

We fully understand and agree to comply that on verification, if any of the information provided here is found to be misleading the selection process, we are liable to be dismissed from the selection process or termination of the contract during the project, if selected to do so.

We agree for unconditional acceptance of all the terms and conditions set out in the Bid Document and also agree to abide by this tender response for a period of 180 days from the due date of submission of proposal.

We hereby declare that in case we are chosen as the Successful Bidder, we shall submit the PBG in the form prescribed in the Bid Document.

We agree that you are not bound to accept any tender response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/ services specified in the tender response.

| S.No. | Description                                                                                  | Details (to be filled by the bidder) |
|-------|----------------------------------------------------------------------------------------------|--------------------------------------|
| 1     | Name of the Company                                                                          |                                      |
| 2     | Official Address with Phone No., Fax No., E-Mail id                                          |                                      |
| 3     | Corporate Headquarters Address with Phone No., Fax No., E-Mail id                            |                                      |
| 4     | Website Address                                                                              |                                      |
| 5     | Details of Company's Registration (Please enclose copy of the company registration document) |                                      |
| 6     | Name of Registration Authority                                                               |                                      |

|   |                                              |  |
|---|----------------------------------------------|--|
| 7 | Registration Number and Year of Registration |  |
| 8 | GST registration No.                         |  |
| 9 | Permanent Account Number (PAN)               |  |

Contact Details of officials for future correspondence regarding the bid process:

| Details           | Authorised Signatory | Secondary Contact |
|-------------------|----------------------|-------------------|
| Name              |                      |                   |
| Title/Designation |                      |                   |
| Company Address   |                      |                   |
| Phone Number      |                      |                   |
| Mobile Number     |                      |                   |
| E-Mail id         |                      |                   |

It is hereby confirmed that I/We are entitled to act on behalf of our company and empowered to sign this document as well as such other documents, which may be required in this connection.

**Undertaking**

**Support from OEM / Technology Partner:** I /We shall provide an undertaking from OEM / Technology Partner confirming service support including spares, software upgrades, etc. shall be made available during warranty period as mentioned under this RFP.

Yours Faithfully  
[Authorized signatory]  
[Designation]

[Place]  
[Date and Time]  
[Seal & sign]  
[Business Address]



## 10.2. Material / Equipment Specifications:

The specifications mentioned in the RFP are the minimum specifications which the bidder has to fulfill for the implementation of the whole surveillance system. MD MPWLC and Technical Committee reserve the right to /power to modify the below specifications.

### 10.2.1. Eligible Goods and Services and OEM Criteria

| S. No | Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | Bidder shall ensure, while choosing its OEMs, compliance with the Office Memorandum for insertion of Rule 144 (xi) in the General Finance Rules (GFR)-2017 bearing reference number F.No. 6/18/2019-PPD dated 23 July 2020 or any latest amendments by the Public Procurement Division, Department of Expenditure, Ministry of Finance.                                                                                                              |
| 2     | The proposed OEM for CCTV/NVR should provide MAC ids of the quoted products at the time of delivery and the MAC address of the proposed equipment must be registered in the name of the OEM/make only.                                                                                                                                                                                                                                               |
| 3     | Technical Proposal should be accompanied by OEM's product brochure / datasheet. Bidders should ensure complete warranty and support for all equipment from OEMs.                                                                                                                                                                                                                                                                                     |
| 4     | All the hardware and software supplied should be from the reputed Original Equipment Manufacturers (OEMs). User Department reserves the right to ask replacement of any hardware / software if it is not from a reputed brand and conforms to all the requirements specified in the tender document.                                                                                                                                                 |
| 5     | Proposed Cameras should be ONVIF Core Specification (As per the latest Version Policy) 2.X' or 'S', G', 'T' compliant and provide support for ONVIF profiles such as Streaming, Storage, Recording, Playback, and Access Control. OEM should be either full or contributor level members as per ONVIF and submit the undertaking that should not be banned or never suspended by ONVIF within the last 10 years from the date of publishing the bid. |
| 6     | The Camera to be provided by the bidder should not be complying to GB28181, GB/T28181-2011 standards and there should be no option to activate or deactivate GB/T28181 standards in the camera web page/Settings. (Submit the self-declaration by the OEM, duly signed by the authorized signatory)                                                                                                                                                  |
| 7     | All quoted camera models and NVR functionalities, if any should have prior integration with the quoted NVR version latest on date of bid submission. or must be from same OEM, in case of different NVR OEM and Camera OEM to submit declaration with supportive test report regarding this.                                                                                                                                                         |
| 8     | OEM needs to submit declaration on letterhead regarding quoted cameras series specific sensor and SoC details (Make, Model etc.).                                                                                                                                                                                                                                                                                                                    |
| 9     | The camera should be manufacturer's official product line designed for commercial / industrial 24x7x365 use. The camera firmware should be designed and developed by the same OEM.                                                                                                                                                                                                                                                                   |
| 10    | The OEM must maintain a dedicated workforce in India, reflecting a good level of operations on its payroll thereby possesses the necessary infrastructure to provide reliable, long-term after-sales service and spare parts support directly through its own resources.                                                                                                                                                                             |
| 11    | The Intellectual Property Rights & Source Code of Offered Cameras, Network Video Recorder (NVR) & its functionalities, if any must not reside in a Country that is sharing Land Border with India as per Department for Promotion of Industry and Internal Trade (DPIIT)'s Competent Authority- Rule 144(xi) of the General Financial Rules 2017.                                                                                                    |

### 10.2.2. All in One Desktop Computer

| All in One Desktop Computer |             |                                                                                         |
|-----------------------------|-------------|-----------------------------------------------------------------------------------------|
| S.No                        | Description | Specification/Minimum Requirement                                                       |
| 1                           | Processor   | Intel Core i5, 12th generation, processor number 12400, 6 cores per processor or higher |

|    |                                          |                                                                                                  |
|----|------------------------------------------|--------------------------------------------------------------------------------------------------|
|    |                                          | configuration                                                                                    |
| 2  | Chipset Series                           | Intel B Series                                                                                   |
| 3  | Graphics                                 | Intel Integrated                                                                                 |
| 4  | Operating System                         | Windows 10 Professional                                                                          |
| 5  | Recovery Image Media                     | CD from the OEM / Stored in partition of the Hard Disk / USB drive from the OEM / Online / Cloud |
| 6  | Memory                                   | 8GB DDR 4 RAM 3200MHz                                                                            |
| 7  | DIMM Slots                               | 2                                                                                                |
| 8  | RAM Expandability using spare DIMM Slots | 64 GB                                                                                            |
| 9  | Storage                                  | HDD 1000 GB @ 5400 rpm and SSD 1 TB                                                              |
|    | Internal Speaker                         | Built-in 2x 3W stereo speakers                                                                   |
| 10 | Display                                  | 23.8" Screen with Integrated 5.0 MP webcam with 2 digital microphones                            |
| 11 | Connectivity                             | 1 Ethernet Port, 802.11ax/ac/a/b/g/n, Wi-Fi 6 and Bluetooth® 5.2                                 |
|    | Connectors                               | 2 x SATA 6Gb/s connector                                                                         |
| 12 | Ports                                    | 2 x USB 2.0, 1 x USB 3.0, 1 VGA port, 1 HDMI port                                                |
| 13 | Generic                                  | Optical drive not required. Audio-in, audio-out, headphone-out, microphone-in required.          |
| 14 | Power                                    | 3-pin 120W Power                                                                                 |
| 15 | Certification                            | EPEAT Silver, CE, FCC, UL, Windows, TCO 9.0, RoHS, ENERGY STAR®                                  |
| 16 | Anti-Virus                               | Anti-Ransomware, Email/Phishing Protection, IDS/IPS, Advanced DNA Scan.                          |
| 17 | Input Devices                            | Wired keyboard and mouse connectivity, optical scroll                                            |
| 18 | Warranty                                 | On Site OEM Warranty for 5 years from date of commissioning                                      |

### 10.2.3. Minimum Specifications of OUTDOOR BULLET CAMERA

| S. No | Parameter                    | Specification                                                                      |
|-------|------------------------------|------------------------------------------------------------------------------------|
| 1     | Image Sensor & Resolution    | 1/2.8" CMOS sensor with P-Iris; minimum 2MP/ 4MP resolution or higher              |
| 2     | Maximum Frame Rate           | 4MP: 30/25 fps; 2MP: 60/50 fps                                                     |
| 3     | Minimum Illumination (Color) | 0.005/0.05 Lux or better                                                           |
| 4     | Minimum Illumination (B/W)   | 0.01 Lux or better                                                                 |
| 5     | Iris Type                    | Precision P-Iris for optimal depth and clarity                                     |
| 6     | Wide Dynamic Range           | True WDR, 120 dB or better for high-contrast lighting zones                        |
| 7     | Lens Focal Length            | Dome & Bullet - 2.8–12 mm motorized varifocal lens                                 |
| 8     | Lens Focal Length (ANPR)     | Bullet 2.8–12 mm motorized varifocal lens for license plate recognition            |
| 9     | Shutter Speed Range          | 1/3s to 1/100000s / 1/5 s to 1/30,000 s for dynamic lighting adjustments or better |

|    |                              |                                                                                                                                                                                                                                                                                                                                                |
|----|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10 | Infrared Coverage            | Internal Illuminator & Visibility should for<br>Bullet: $\geq 70\text{m}$<br>Dome: $\geq 50\text{m}$<br>ANPR: $\geq 60\text{m}$                                                                                                                                                                                                                |
| 11 | Image Adjustments            | corridor mode, Timestamp, text overlay, flip/mirror, ROI, saturation, brightness, contrast, WDR, sharpness, white balance, rotation, AGC,                                                                                                                                                                                                      |
| 12 | Multiple Exposure Support    | Auto, Indoor, Outdoor, ANPR etc.                                                                                                                                                                                                                                                                                                               |
| 13 | Video Compression            | H.265, H.264, and MJPEG with Individually Configurable 02 Video Stream.                                                                                                                                                                                                                                                                        |
| 14 | Audio Compression            | G.711 $\mu$ -law with built-in noise reduction                                                                                                                                                                                                                                                                                                 |
| 15 | Multi-Stream Capability      | Minimum Triple streaming; supports up to 5 concurrent shared streams                                                                                                                                                                                                                                                                           |
| 16 | Simultaneous Access          | Real-time monitoring for up to 10 users                                                                                                                                                                                                                                                                                                        |
| 17 | Smart Motion Detection Zones | Configurable up to 3 zones or better                                                                                                                                                                                                                                                                                                           |
| 18 | Privacy Masking              | Up to 4 configurable zones or better                                                                                                                                                                                                                                                                                                           |
| 19 | Audio                        | Audio compression with G.711 u-law, Sampling Rate: 8 KHz, Sampling Rate: 16-bit, Frequency Response Range: 100 to 3,600 Hz, Inputs Terminal: Internal Microphone for Dome. External Microphone, Connector Type: Terminal Block for Bullet, Impedance: 20K ohms/attenuation = 0 dB, Maximum level: 2Vp-p, Impedance: High, Maximum level: 2Vp-p |
| 20 | Video Output                 | 1 $\times$ BNC connector, to add flexibility by allowing analog video output for locally real-time monitoring.                                                                                                                                                                                                                                 |
| 21 | Video Analytics              | Perimeter breach detection, Region Entry/exit, , Object detection, Abandoned/removed item alerts, Target Counting/ Crowd.                                                                                                                                                                                                                      |
| 22 | Analytics Events             | Focus on human and vehicle classification based on deep learning                                                                                                                                                                                                                                                                               |
| 23 | Perimeter Protection         | Perimeter crossing, intrusion, region entrance, region exiting Support alarm triggered by specified target types (human and vehicle)                                                                                                                                                                                                           |
| 24 | Abnormality Alarm            | Smart Motion detection (SMD), video tamper detection, cameras Tamper detection, alarm input.                                                                                                                                                                                                                                                   |
| 25 | Event Actions                | Email, snapshots, FTP upload, SD card recording, audio playback.                                                                                                                                                                                                                                                                               |
| 26 | Alarm Interface Module (AIM) | Alarm Interface Module I/O: 1in/1out for Pre-Alarm Recording                                                                                                                                                                                                                                                                                   |
| 27 | Internal Memory              | 256 MB RAM and 512 MB Flash or better                                                                                                                                                                                                                                                                                                          |
| 28 | Local Storage                | SD Card Slot 256 GB; automatic failover and sync with network storage                                                                                                                                                                                                                                                                          |
| 29 | Cyber security               | Enhanced security mode, TLS 1.1 (256-bit), IEC 62443-4-1, RTSP authentication, IEEE 802.1X, audit logs, role-based access, video encryption, Secure boot.                                                                                                                                                                                      |
| 30 | Enhanced Security Mode       | Enforces complex passwords, HTTPS, and disables device discovery with TLS 1.1 with minimum 256-bit cipher                                                                                                                                                                                                                                      |
| 31 | General Function             | Heartbeat monitor, mirror, flash log, pixel counter                                                                                                                                                                                                                                                                                            |
| 32 | RBAC                         | Administrator Role, Operator Role, etc.                                                                                                                                                                                                                                                                                                        |
| 33 | Cybersecurity Certifications | STQC-ER/IEC 62443-4-1, UL/UL-Cap & BIS.                                                                                                                                                                                                                                                                                                        |
| 34 | Supported Network Protocols  | TCP/IP, UDP, DHCP, NTP, RTSP, SMTP, FTP, SNMP, UPnP, Unicast, Multicast, ICMP, HTTP, HTTPS, DNS, DDNS, RTP, RTCP,                                                                                                                                                                                                                              |

|    |                           |                                                                                                                                                                                                                                                                                                                                                             |
|----|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                           | IGMP, 802.1X, IPv4, IPv6.                                                                                                                                                                                                                                                                                                                                   |
| 35 | Web Browser Compatibility | Microsoft Edge, Firefox, Safari, Chrome                                                                                                                                                                                                                                                                                                                     |
| 36 | ONVIF Compliance          | Profile S, Profile G & Profile T.<br>OEM Should not be Banned/Blacklist by ONVIF for the past 10 years.<br>OEM Should be Member of ONVIF for period of Minimum 10 Years or More.                                                                                                                                                                            |
| 37 | Network Port              | 1 × RJ45 10/100 Mbps self-adaptive Ethernet port                                                                                                                                                                                                                                                                                                            |
| 38 | Built-in Microphone       | Impedance: 20K ohms/attenuation = 0 dB, Maximum level: 2Vp-p                                                                                                                                                                                                                                                                                                |
| 39 | Reset Function            | Hardware reset and factory default button required                                                                                                                                                                                                                                                                                                          |
| 40 | Power Supply              | POE: POE IEEE 802.3af, Class 3, & 12VDC: Voltage range: 10 - 15.8VDC Current draw amps: 850mA, Wattage ~10.2W                                                                                                                                                                                                                                               |
| 41 | Power Redundancy          | Dual power supply with PoE & 12VDC with Auto Toggle                                                                                                                                                                                                                                                                                                         |
| 42 | Operating Conditions      | -30 °C to 55 °C; 0% to 95% relative humidity                                                                                                                                                                                                                                                                                                                |
| 43 | Environmental Protection  | Water and dust resistant (IP67) and vandal resistant (IK10) with Anti-corrosion design (NEMA 4X) for outdoor installation.                                                                                                                                                                                                                                  |
| 44 | Emissions & Immunity      | FCC, CE                                                                                                                                                                                                                                                                                                                                                     |
| 45 | Safety & Environment      | UL/CSA 62368-1/BIS IS 13252 (Part 1)/IEC 69050-1, IEC 62443-4-1, RoHS, REACH, WEEE, NDAA Compliant.                                                                                                                                                                                                                                                         |
| 46 | Local Certifications      | Make in India product should have a certification from a BIS/STQC approved lab or equivalent International standard UL/EN/FCC/CE with equivalent IEC standard (IEC 62368-1) at the time of bid submission.                                                                                                                                                  |
| 47 | ISO Certification         | The OEM should be ISO 9001:2008, ISO 14001 and ISO 45001, ISO27001, IEC/ISA 62443-4-2, CMMI-Level 3, SOC -1 Certified Company. These certifications must be valid at the time of bid submission.                                                                                                                                                            |
| 48 | Tech Support & repair     | The OEM must have established manufacturing and warehouse facilities in India, along with a fully operational RMA (Return Merchandise Authorization) center and toll-free technical support services within the country. These facilities and support infrastructure should have been consistently operational in India for a minimum of the past 10 years. |

#### 10.2.4. Minimum Specifications of OUTDOOR DOME CAMERA

| S. No | Parameter                    | Specification                                                           |
|-------|------------------------------|-------------------------------------------------------------------------|
| 1     | Image Sensor & Resolution    | 1/2.8" CMOS sensor with P-Iris; minimum 4MP resolution or higher        |
| 2     | Maximum Frame Rate           | 4MP: 30/25 fps; 2MP: 60/50 fps                                          |
| 3     | Minimum Illumination (Color) | 0.05 Lux or better                                                      |
| 4     | Minimum Illumination (B/W)   | 0.01 Lux or better                                                      |
| 5     | Iris Type                    | Precision P-Iris for optimal depth and clarity                          |
| 6     | Wide Dynamic Range           | True WDR, 120 dB or better for high-contrast lighting zones             |
| 7     | Lens Focal Length            | Dome & Bullet - 2.8–12 mm motorized varifocal lens                      |
| 8     | Lens Focal Length (ANPR)     | Bullet 2.8–12 mm motorized varifocal lens for license plate recognition |

|    |                              |                                                                                                                                                                                                                                                                                                                                                |
|----|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9  | Shutter Speed Range          | 1/5 s to 1/30,000 s for dynamic lighting adjustments or better                                                                                                                                                                                                                                                                                 |
| 10 | Infrared Coverage            | Internal Illuminator & Visibility should for<br>Bullet: $\geq 70\text{m}$<br>Dome: $\geq 50\text{m}$<br>ANPR: $\geq 60\text{m}$                                                                                                                                                                                                                |
| 11 | Image Adjustments            | corridor mode, Timestamp, text overlay, flip/mirror, ROI, saturation, brightness, contrast, WDR, sharpness, white balance, rotation, AGC,                                                                                                                                                                                                      |
| 12 | Multiple Exposure Support    | Auto, Indoor, Outdoor, ANPR etc.                                                                                                                                                                                                                                                                                                               |
| 13 | Video Compression            | H.265, H.264, and MJPEG with Individually Configurable 02 Video Stream.                                                                                                                                                                                                                                                                        |
| 14 | Audio Compression            | G.711 $\mu$ -law with built-in noise reduction                                                                                                                                                                                                                                                                                                 |
| 15 | Multi-Stream Capability      | Minimum Triple streaming; supports up to 5 concurrent shared streams                                                                                                                                                                                                                                                                           |
| 16 | Simultaneous Access          | Real-time monitoring for up to 10 users                                                                                                                                                                                                                                                                                                        |
| 17 | Smart Motion Detection Zones | Configurable up to 3 zones or better                                                                                                                                                                                                                                                                                                           |
| 18 | Privacy Masking              | Up to 4 configurable zones or better                                                                                                                                                                                                                                                                                                           |
| 19 | Audio                        | Audio compression with G.711 u-law, Sampling Rate: 8 KHz, Sampling Rate: 16-bit, Frequency Response Range: 100 to 3,600 Hz, Inputs Terminal: Internal Microphone for Dome. External Microphone, Connector Type: Terminal Block for Bullet, Impedance: 20K ohms/attenuation = 0 dB, Maximum level: 2Vp-p, Impedance: High, Maximum level: 2Vp-p |
| 20 | Video Output                 | 1 $\times$ BNC connector, to add flexibility by allowing analog video output for locally real-time monitoring.                                                                                                                                                                                                                                 |
| 21 | Video Analytics              | Perimeter breach detection, Region Entry/exit, , Object detection, Abandoned/removed item alerts, Target Counting/ Crowd.                                                                                                                                                                                                                      |
| 22 | Analytics Events             | Focus on human and vehicle classification based on deep learning                                                                                                                                                                                                                                                                               |
| 23 | Perimeter Protection         | Perimeter crossing, intrusion, region entrance, region exiting Support alarm triggered by specified target types (human and vehicle)                                                                                                                                                                                                           |
| 24 | Abnormality Alarm            | Motion detection, video tamper detection, cameras Tamper detection, alarm input.                                                                                                                                                                                                                                                               |
| 25 | Event Actions                | Email, snapshots, FTP upload, SD card recording, audio playback.                                                                                                                                                                                                                                                                               |
| 26 | Alarm Interface Module (AIM) | Alarm Interface Module I/O: 1in/1out for Pre-Alarm Recording                                                                                                                                                                                                                                                                                   |
| 27 | Internal Memory              | 256 MB RAM and 512 MB Flash or better                                                                                                                                                                                                                                                                                                          |
| 28 | Local Storage                | SD Card Slot 256 GB; automatic failover and sync with network storage                                                                                                                                                                                                                                                                          |
| 29 | Cyber security               | Enhanced security mode, TLS 1.1 (256-bit)/ IEC 62443-4-1, RTSP authentication, IEEE 802.1X, audit logs, role-based access, video encryption, Secure boot.                                                                                                                                                                                      |
| 30 | Enhanced Security Mode       | Enforces complex passwords, HTTPS, and disables device discovery with TLS 1.1 with minimum 256-bit cipher                                                                                                                                                                                                                                      |
| 31 | General Function             | Heartbeat monitor, mirror, flash log, pixel counter                                                                                                                                                                                                                                                                                            |
| 32 | RBAC                         | Administrator Role, Operator Role, etc.                                                                                                                                                                                                                                                                                                        |
| 33 | Cybersecurity Certifications | STQC-ER/IEC 62443-4-1, UL/UL-Cap & BIS.                                                                                                                                                                                                                                                                                                        |
| 34 | Supported Network Protocols  | TCP/IP, UDP, DHCP, NTP, RTSP, SMTP, FTP, SNMP, UPnP, Unicast, Multicast, ICMP, HTTP, HTTPS, DNS, DDNS, RTP,                                                                                                                                                                                                                                    |

|    |                           |                                                                                                                                                                                                                                                                                                                                                             |
|----|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                           | RTCP, IGMP, 802.1X, IPv4, IPv6.                                                                                                                                                                                                                                                                                                                             |
| 35 | Web Browser Compatibility | Should be supported by all major web browsers used in India                                                                                                                                                                                                                                                                                                 |
| 36 | ONVIF Compliance          | Profile S, Profile G & Profile T.<br>OEM Should not be Banned/Blacklist by ONVIF for the past 10 years.<br>OEM Should be Member of ONVIF for period of Minimum 10 Years or More.                                                                                                                                                                            |
| 37 | Network Port              | 1 × RJ45 10/100 Mbps self-adaptive Ethernet port                                                                                                                                                                                                                                                                                                            |
| 38 | Built-in Microphone       | Impedance: 20K ohms/attenuation = 0 dB, Maximum level: 2Vp-p                                                                                                                                                                                                                                                                                                |
| 39 | Reset Function            | Hardware reset and factory default button required                                                                                                                                                                                                                                                                                                          |
| 40 | Power Supply              | POE: POE IEEE 802.3af, Class 3, & 12VDC: Voltage range: 10 - 15.8VDC Current draw amps: 850mA, Wattage ~10.2W                                                                                                                                                                                                                                               |
| 41 | Power Redundancy          | Dual power supply with PoE & 12VDC with Auto Toggle                                                                                                                                                                                                                                                                                                         |
| 42 | Operating Conditions      | -30 °C to 55 °C; 0% to 95% relative humidity                                                                                                                                                                                                                                                                                                                |
| 43 | Environmental Protection  | Water and dust resistant (IP67) and vandal resistant (IK10) with Anti-corrosion design (NEMA 4X) for outdoor installation.                                                                                                                                                                                                                                  |
| 44 | Emissions & Immunity      | FCC, CE                                                                                                                                                                                                                                                                                                                                                     |
| 45 | Safety & Environment      | UL/CSA 62368-1/BIS IS 13252 (Part 1)/IEC 69050-1, IEC 62443-4-1, RoHS, REACH/ WEEE/ NDAA Compliant.                                                                                                                                                                                                                                                         |
| 46 | Local Certifications      | Make in India product should have a certification from a BIS/STQC approved lab or equivalent International standard UL/EN/FCC/CE with equivalent IEC standard (IEC 62368-1) at the time of bid submission.                                                                                                                                                  |
| 47 | ISO Certification         | The OEM should be ISO 9001:2008, ISO 14001 and ISO 45001, ISO27001, IEC/ISA 62443-4-2, CMMI-Level 3, SOC -1 Certified Company. These certifications must be valid at the time of bid submission.                                                                                                                                                            |
| 48 | Tech Support & repair     | The OEM must have established manufacturing and warehouse facilities in India, along with a fully operational RMA (Return Merchandise Authorization) center and toll-free technical support services within the country. These facilities and support infrastructure should have been consistently operational in India for a minimum of the past 10 years. |

#### 10.2.5. Minimum Specifications of OUTDOOR PTZ CAMERA

| S. No | Parameter                    | Specification                                                    |
|-------|------------------------------|------------------------------------------------------------------|
| 1     | Image Sensor & Resolution    | 1/2.8" CMOS sensor with P-Iris; minimum 4MP resolution or higher |
| 2     | Maximum Frame Rate           | 4MP: 30/25 fps; 2MP: 60/50 fps                                   |
| 3     | Minimum Illumination (Color) | 0.05 Lux or better                                               |
| 4     | Minimum Illumination (B/W)   | 0.01 Lux or better                                               |
| 5     | Iris Type                    | Precision P-Iris for optimal depth and clarity                   |
| 6     | Wide Dynamic Range           | True WDR, 120 dB or better for high-contrast lighting zones      |
| 7     | Lens Focal Length            | 5.5 - 155mm (+/-0.5mm), motorized varifocal lens                 |
| 8     | Aperture                     | F/1.3(W) – F/4.8(T)                                              |

|    |                                |                                                                                                                                                                                                                                                          |
|----|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9  | Shutter Speed Range            | 1/5 s to 1/30,000 s for dynamic lighting adjustments or better                                                                                                                                                                                           |
| 10 | Infrared Coverage              | Internal Illuminator for Night Visibility up to 200m                                                                                                                                                                                                     |
| 11 | Pan/Tilt/Zoom                  | Pan: 360° continuous endless, 0.04° - 300°/s<br>Tilt: +15° to -90°, 0.04° - 180°/s<br>Zoom: 30x optical, 12x digital, total 360x zoom<br>Auto flip, 300 presets, 96 sequences, 16 programmable pattern, Apple peel, adjustable zoom speed, home position |
| 12 | Image Adjustments              | Timestamp, text overlay, flip/mirror, ROI, saturation, brightness, contrast, WDR, sharpness, white balance, rotation, AGC, corridor mode                                                                                                                 |
| 13 | Multiple Exposure Support      | Auto, Indoor, Outdoor, ANPR etc.                                                                                                                                                                                                                         |
| 14 | Video Compression              | H.265, H.264, and MJPEG with Individually Configurable 02 Video Stream & Support Dual Stream Full HD                                                                                                                                                     |
| 15 | Audio Compression              | G.711 $\mu$ -law with built-in noise reduction                                                                                                                                                                                                           |
| 16 | Multi-Stream Capability        | Minimum Triple streaming; supports up to 5 concurrent shared streams                                                                                                                                                                                     |
| 17 | Simultaneous Access            | Real-time monitoring for up to 10 users                                                                                                                                                                                                                  |
| 18 | Smart Motion Detection Zones   | Configurable up to 3 zones or better, On Full screen                                                                                                                                                                                                     |
| 19 | Guard Tour                     | Intelligent Object/Person Tracking                                                                                                                                                                                                                       |
| 20 | Privacy Masking                | Up to 4 configurable zones or better                                                                                                                                                                                                                     |
| 21 | Electronic Image stabilization | Electronic Image Stabilization (EIS) with an integrated G-sensor to reduce vibration-induced blurring and ensure smooth video capture                                                                                                                    |
| 22 | Audio                          | Audio compression with G.711 u-law with Bi-directional, 1x Line input and 1x Line output                                                                                                                                                                 |
| 23 | Video Output                   | 1 $\times$ BNC connector, to add flexibility by allowing analog video output for real-time monitoring                                                                                                                                                    |
| 24 | Tamper Detection               | FoV tamper detection                                                                                                                                                                                                                                     |
| 25 | Video Analytics                | Perimeter breach detection, Region Entry/exit, Linger and dwell, Object detection, Abandoned/removed item alerts, Crowd density analysis, Queue monitoring.                                                                                              |
| 26 | Analytics Events               | Focus on human and vehicle targets with classification based on deep learning                                                                                                                                                                            |
| 27 | Perimeter Protection           | Perimeter crossing, intrusion, region entrance, region exiting<br>Support alarm triggered by specified target types (human and vehicle)                                                                                                                  |
| 28 | Abnormality Alarm              | Smart Motion Detection (SMD), video tamper detection, cameras Tamper detection, alarm input.                                                                                                                                                             |
| 29 | Event Actions                  | FTP upload, CIFS, Email, snapshots, SD card recording, SIP call, audio playback                                                                                                                                                                          |
| 30 | Alarm Interface Module         | Alarm Interface Module I/O: 2in/2out for Pre-Alarm Recording                                                                                                                                                                                             |
| 31 | Internal Memory                | 1GB RAM, 4 GB Flash or better                                                                                                                                                                                                                            |
| 32 | Local Storage & USB            | SD Card Slot 2 TB; automatic failover and sync with network storage & Micro USB.                                                                                                                                                                         |
| 33 | Cyber security                 | Secure boot, enhanced security mode, TLS 1.2 (256-bit, RTSP authentication), IEC 62443-4-1, IEEE 802.1X, audit logs, role-based access, video encryption                                                                                                 |
| 34 | Enhanced Security Mode         | Enforces complex passwords, HTTPS, and disables device discovery with TLS 1.2 with minimum 256-bit cipher                                                                                                                                                |
| 35 | General Function               | Heartbeat monitor, mirror, flash log, pixel counter                                                                                                                                                                                                      |

|    |                              |                                                                                                                                                                                                                                                                                                                                                             |
|----|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 36 | RBAC                         | Administrator Role, Operator Role, etc.                                                                                                                                                                                                                                                                                                                     |
| 37 | Cybersecurity Certifications | STQC-ER/IEC 62443-4-1, UL/UL-Cap & BIS.                                                                                                                                                                                                                                                                                                                     |
| 38 | Network Protocols            | TCP/IP, IPv4, IPv6, TCP, UDP, HTTP, FTP, DHCP, WS-Discovery, HTTPS, SOAP, WS-Addressing, CIFS, DNS, DDNS, RTP, RTCP, RTSP, TLS, Unicast, Multicast, NTP, ICMP, IGMP, SMTP, WS-Security, IEEE 802.1x, PEAP, EAP-LEAP, QoS EAP-TLS, EAPoL, SSH, , UPNP, LLDP, SIP, ARP.                                                                                       |
| 39 | Web Browser Compatibility    | Microsoft Edge, Firefox, Safari, Chrome                                                                                                                                                                                                                                                                                                                     |
| 40 | ONVIF Compliance             | Profile S, Profile G & Profile T<br>OEM Should not be Banned/Blacklist by ONVIF for the past 10 years.<br>OEM Should be Member of ONVIF for period of Minimum 10 Years or More                                                                                                                                                                              |
| 41 | Ethernet Port                | 1 × RJ45 10/100 Mbps self-adaptive Ethernet port                                                                                                                                                                                                                                                                                                            |
| 42 | Network management           | SNMPv1/v2c/v3(MIB-2)                                                                                                                                                                                                                                                                                                                                        |
| 43 | Reset Function               | Hardware reset and factory default button required                                                                                                                                                                                                                                                                                                          |
| 44 | Power Supply                 | IEEE 802.3bt PoE++ Type 4 Class 7, 24VAC/48VDC                                                                                                                                                                                                                                                                                                              |
| 45 | Power Redundancy             | Support Dual power supply failover PoE++ & 24VAC: 51.6W /48VDC: 48.5W with Auto Toggle.                                                                                                                                                                                                                                                                     |
| 46 | Operating Conditions         | -40 °C to 55 °C; 0% to 95% relative humidity                                                                                                                                                                                                                                                                                                                |
| 47 | Environmental Protection     | Water and dust resistant (IP66) and vandal resistant (IK10) with Anti-corrosion design (NEMA 4X)                                                                                                                                                                                                                                                            |
| 48 | Emissions & Immunity         | FCC PART 15, CE (EN 55032), ICES-003, IEC/BS/EN 61000-3-2, BS/EN 50130-4, UL 62368-1, , EN50121-4, UL60950-1, IEC 60950-1, CSA 22.2 No. 60950                                                                                                                                                                                                               |
| 49 | Safety & Environment         | UL/CSA 62368-1/BIS IS 13252 (Part 1)/IEC 69050-1, IEC 62443-4-1, MSDS, RoHS, REACH, WEEE, NDAA Compliant.                                                                                                                                                                                                                                                   |
| 50 | Local Certifications         | Make in India product should have a certification from a BIS/STQC approved lab or equivalent International standard UL/EN/FCC/CE with equivalent IEC standard (IEC 62368-1) at the time of bid submission.                                                                                                                                                  |
| 51 | ISO Certification            | The OEM should be ISO 9001:2008, ISO 14001 and ISO 45001, ISO27001, IEC/ISA 62443-4-2, CMMI-Level 3, SOC -1 Certified Company. These certifications must be valid at the time of bid submission.                                                                                                                                                            |
| 52 | Tech Support & repair        | The OEM must have established manufacturing and warehouse facilities in India, along with a fully operational RMA (Return Merchandise Authorization) center and toll-free technical support services within the country. These facilities and support infrastructure should have been consistently operational in India for a minimum of the past 10 years. |

#### 10.2.6. Minimum Specifications of 8 CH NETWORK VIDEO RECORDER- NVR.

| S. No | Parameter       | Specification                                                                      |
|-------|-----------------|------------------------------------------------------------------------------------|
| 1     | System Platform | Onboard Hosted Certified Software Applications                                     |
| 2     | Decoding Format | Supports H.264, H.265, MJPEG compression formats                                   |
| 3     | IP Video Input  | Minimum 8 Full HD (1920x1080p) IP video streams per unit                           |
| 4     | Audio Interface | Built-in 1-channel audio input and 1-channel audio output for bi-directional audio |

|    |                           |                                                                                                                                                                            |
|----|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5  | Operating System          | Microsoft Windows 10 or Windows 11                                                                                                                                         |
| 6  | OS Storage                | 128 GB SSD for system operations                                                                                                                                           |
| 7  | Network Bandwidth         | Continuous recording supported up to 300 Mbps IP throughput                                                                                                                |
| 8  | On-Screen Display (OSD)   | Displays camera name, timestamp, video loss, camera lock, motion detection, and recording status                                                                           |
| 9  | Recording Modes           | Manual, time-lapse, and scheduled recording options                                                                                                                        |
| 10 | Abnormality Alarm         | Supports recording, PTZ control, tour, alarm output, video push, email alerts, FTP upload, snapshot capture, buzzer activation, network loss, and video loss               |
| 11 | Supported Resolutions     | Compatible with 32MP, 20MP, 16MP, 12MP, 4K, 6MP, 5MP, 3MP, 2MP, 1.3MP, and 720P cameras                                                                                    |
| 12 | Video Display Split       | 1st Screen: 1/4/8/9/16/32; 2nd Screen: 1/4/8/9/16/32; 3rd Screen: 1/4/8/9/16/32/48.                                                                                        |
| 13 | API                       | ONVIF Profile S & M and API<br>OEM Should not be Banned/Blacklist by ONVIF for the past 10 years.<br>OEM Should be Member of ONVIF for period of Minimum 10 Years or More. |
| 14 | Local Display Performance | Up to 350 FPS at 1080P resolution                                                                                                                                          |
| 15 | Playback Sync             | Supports synchronized playback for 1, 4, or 8 channels: Object Attribute based search.                                                                                     |
| 16 | Storage Bays              | Supports 2 internal HDDs                                                                                                                                                   |
| 17 | Storage Capacity          | Usable capacity up to 16 TB                                                                                                                                                |
| 18 | Monitor Outputs           | 2 x DisplayPort, 1 x HDMI, and 1 x VGA for triple monitor support                                                                                                          |
| 19 | Processor                 | Intel® Core i3 or higher                                                                                                                                                   |
| 20 | System Memory             | Minimum 8 GB RAM                                                                                                                                                           |
| 21 | Failover Support          | N+1 Failover Redundancy                                                                                                                                                    |
| 22 | Thermal Management        | Equipped with 1 internal cooling fan                                                                                                                                       |
| 23 | Network Interface         | Dual 2.0 Gbps Ethernet ports                                                                                                                                               |
| 24 | Interface Ports           | 4 x USB 2.0, 2 x USB 3.1, and 2 x USB 3.2 ports                                                                                                                            |
| 25 | Client OS Compatibility   | Supports macOS (iOS), Windows 11, and Linux 22.00                                                                                                                          |
| 26 | Alarm I/O                 | external I/O module support                                                                                                                                                |
| 27 | PTZ control               | Native client and web interfaces                                                                                                                                           |
| 28 | Smart Phone               | iOS and Android platforms                                                                                                                                                  |
| 29 | Intelligence by Cameras   | Perimeter breach detection, Region Entry/exit, Linger and dwell, Object detection, Abandoned/removed item alerts, Crowd density analysis, Queue monitoring.                |
| 30 | Backup Method             | USB device, network and Cloud                                                                                                                                              |
| 31 | User Access               | Supports up to 100 simultaneous users per server                                                                                                                           |
| 32 | System Integration        | Native integration with POS, PSIM, LDAP, access control, intrusion detection, and FAS (physical)                                                                           |
| 33 | Peripherals               | Includes keyboard and mouse                                                                                                                                                |
| 34 | Power Supply              | Max 100W, input voltage 100–240 VAC                                                                                                                                        |
| 35 | Environmental Conditions  | Operating temperature: 40°F to 95°F; humidity: 0% to 95% RH                                                                                                                |
| 36 | Regulatory Compliance     | BIS, CE, FCC, EMS, RoHS, TAA/ NDA compliant<br>These certifications must be valid at the time of bid submission.                                                           |
| 37 | Local Certifications      | Make in India product should have a certification from a BIS/STQC approved lab or equivalent International standard                                                        |

|    |                   |                                                                                                                                                                                                  |
|----|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                   | UL/EN/FCC/CE with equivalent IEC standard (IEC 62368-1) at the time of bid submission.                                                                                                           |
| 38 | ISO Certification | The OEM should be ISO 9001:2008, ISO 14001 and ISO 45001, ISO27001, IEC/ISA 62443-4-2, CMMI-Level 3, SOC -1 Certified Company. These certifications must be valid at the time of bid submission. |

#### 10.2.7. Minimum Specifications of 16 CH NETWORK VIDEO RECORDER- NVR.

| S. No | Parameter                 | Specification                                                                                                                                                              |
|-------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | System Platform           | Onboard Hosted Certified Software Applications                                                                                                                             |
| 2     | Decoding Format           | Supports H.264, H.265, MJPEG compression formats                                                                                                                           |
| 3     | IP Video Input            | Minimum 16 Full HD (1920x1080p) IP video streams per unit                                                                                                                  |
| 4     | Audio Interface           | Built-in 1-channel audio input and 1-channel audio output for bi-directional audio                                                                                         |
| 5     | Operating System          | Microsoft Windows 10 or Windows 11                                                                                                                                         |
| 6     | OS Storage                | 256 GB SSD for system operations                                                                                                                                           |
| 7     | Network Bandwidth         | Continuous recording supported up to 320 Mbps IP throughput                                                                                                                |
| 8     | On-Screen Display (OSD)   | Displays camera name, timestamp, video loss, camera lock, motion detection, and recording status                                                                           |
| 9     | Recording Modes           | Manual, time-lapse, and scheduled recording options                                                                                                                        |
| 10    | Abnormality Alarm         | Supports recording, PTZ control, tour, alarm output, video push, email alerts, FTP upload, snapshot capture, buzzer activation, network loss, and video loss               |
| 11    | Supported Resolutions     | Compatible with 32MP, 20MP, 16MP, 12MP, 4K, 6MP, 5MP, 3MP, 2MP, 1.3MP, and 720P cameras                                                                                    |
| 12    | Video Display Split       | 1st Screen: 1/4/8/9/16/32 ; 2nd Screen: 1/4/8/9/16/32; 3rd Screen: 1/4/8/9/16/32/48.                                                                                       |
| 13    | API                       | ONVIF Profile S & M and API<br>OEM Should not be Banned/Blacklist by ONVIF for the past 10 years.<br>OEM Should be Member of ONVIF for period of Minimum 10 Years or More. |
| 14    | Local Display Performance | Up to 350 FPS at 1080P resolution                                                                                                                                          |
| 15    | Playback Sync             | Supports synchronized playback for 1, 4,8 &16 channels; Object Attribute based search.                                                                                     |
| 16    | Storage Bays              | Supports 2 internal HDDs                                                                                                                                                   |
| 17    | Storage Capacity          | Usable capacity up to 32 TB                                                                                                                                                |
| 18    | Monitor Outputs           | 2 x DisplayPort, 1 x HDMI, and 1 x VGA for triple monitor support                                                                                                          |
| 19    | Processor                 | Intel® Core i3 or higher                                                                                                                                                   |
| 20    | System Memory             | Minimum 8 GB RAM                                                                                                                                                           |
| 21    | Failover Support          | N+1 Failover Redundancy                                                                                                                                                    |
| 22    | Thermal Management        | Equipped with 1 internal cooling fan                                                                                                                                       |
| 23    | Network Interface         | Dual 2.0 Gbps Ethernet ports                                                                                                                                               |
| 24    | Interface Ports           | 4 x USB 2.0, 2 x USB 3.1, and 2 x USB 3.2 ports                                                                                                                            |

|    |                          |                                                                                                                                                                                                            |
|----|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 25 | Client OS Compatibility  | Supports macOS (iOS), Windows 11, and Linux 22.00                                                                                                                                                          |
| 26 | Alarm I/O                | external I/O module support                                                                                                                                                                                |
| 27 | PTZ control              | Native client and web interfaces                                                                                                                                                                           |
| 28 | Smart Phone              | iOS and Android platforms                                                                                                                                                                                  |
| 29 | Intelligence by Cameras  | Perimeter breach detection, Region Entry/exit, Linger and dwell, Object detection, Abandoned/removed item alerts, Crowd density analysis, Queue monitoring.                                                |
| 30 | Backup Method            | USB device, network and Cloud                                                                                                                                                                              |
| 31 | User Access              | Supports up to 100 simultaneous users per server                                                                                                                                                           |
| 32 | System Integration       | Native integration with POS, PSIM, LDAP, access control, intrusion detection, and FAS (physical)                                                                                                           |
| 33 | Peripherals              | Includes keyboard and mouse                                                                                                                                                                                |
| 34 | Power Supply             | Max 100W, input voltage 100–240 VAC                                                                                                                                                                        |
| 35 | Environmental Conditions | Operating temperature: 40°F to 95°F; humidity: 0% to 95% RH                                                                                                                                                |
| 36 | Regulatory Compliance    | BIS, CE, FCC, EMS, RoHS, TAA, NDAA compliant<br>These certifications must be valid at the time of bid submission.                                                                                          |
| 37 | Local Certifications     | Make in India product should have a certification from a BIS/STQC approved lab or equivalent International standard UL/EN/FCC/CE with equivalent IEC standard (IEC 62368-1) at the time of bid submission. |
| 38 | ISO Certification        | The OEM should be ISO 9001:2008, ISO 14001 and ISO 45001, ISO27001, IEC/ISA 62443-4-2, CMMI-Level 3, SOC -1 Certified Company. These certifications must be valid at the time of bid submission.           |

#### 10.2.8. Minimum Specifications of 32 NETWORK VIDEO RECORDER- NVR.

| S. No | Parameter               | Specification                                                                                                                                                |
|-------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | System Platform         | Onboard Hosted Certified Software Applications                                                                                                               |
| 2     | Decoding Format         | Supports H.264, H.265, MJPEG compression formats                                                                                                             |
| 3     | IP Video Input          | Minimum 16 Full HD (1920x1080p) IP video streams per unit                                                                                                    |
| 4     | Audio Interface         | Built-in 1-channel audio input and 1-channel audio output for bi-directional audio                                                                           |
| 5     | Operating System        | Microsoft Windows 10 or Windows 11                                                                                                                           |
| 6     | OS Storage              | 256 GB SSD for system operations                                                                                                                             |
| 7     | Network Bandwidth       | Continuous recording supported up to 350 Mbps IP throughput                                                                                                  |
| 8     | On-Screen Display (OSD) | Displays camera name, timestamp, video loss, camera lock, motion detection, and recording status                                                             |
| 9     | Recording Modes         | Manual, time-lapse, and scheduled recording options                                                                                                          |
| 10    | Abnormality Alarm       | Supports recording, PTZ control, tour, alarm output, video push, email alerts, FTP upload, snapshot capture, buzzer activation, network loss, and video loss |
| 11    | Supported Resolutions   | Compatible with 32MP, 20MP, 16MP, 12MP, 4K, 6MP, 5MP, 3MP, 2MP, 1.3MP, and 720P cameras                                                                      |
| 12    | Video Display Split     | 1st Screen: 1/4/8/9/16/32 ; 2nd Screen: 1/4/8/9/16/32; 3rd Screen: 1/4/8/9/16/32/48.                                                                         |
| 13    | API                     | ONVIF Profile S & M and API<br>OEM Should not be Banned/Blacklist by ONVIF for the past 10                                                                   |

|    |                           |                                                                                                                                                                                                            |
|----|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |                           | years.<br>OEM Should be Member of ONVIF for period of Minimum 10 Years or More.                                                                                                                            |
| 14 | Local Display Performance | Up to 400 FPS at 1080P resolution                                                                                                                                                                          |
| 15 | Playback Sync             | Supports synchronized playback for 1, 4,8 &16 channels; Object Attribute based search.                                                                                                                     |
| 16 | Storage Bays              | Supports 2 internal HDDs                                                                                                                                                                                   |
| 17 | Storage Capacity          | Usable capacity up to 48 TB                                                                                                                                                                                |
| 18 | Monitor Outputs           | 2 x DisplayPort, 1 x HDMI, and 1 x VGA for triple monitor support                                                                                                                                          |
| 19 | Processor                 | Intel® Core i3 or higher                                                                                                                                                                                   |
| 20 | System Memory             | Minimum 8 GB RAM ( 16GB Upgradable)                                                                                                                                                                        |
| 21 | Failover Support          | N+1 Failover Redundancy                                                                                                                                                                                    |
| 22 | Thermal Management        | Equipped with 1 internal cooling fan                                                                                                                                                                       |
| 23 | Network Interface         | Dual 2.5 Gbps Ethernet ports                                                                                                                                                                               |
| 24 | Interface Ports           | 4 x USB 2.0, 2 x USB 3.1, and 2 x USB 3.2 ports                                                                                                                                                            |
| 25 | Client OS Compatibility   | Supports macOS (iOS), Windows 11, and Linux 22.00                                                                                                                                                          |
| 26 | Alarm I/O                 | external I/O module support                                                                                                                                                                                |
| 27 | PTZ control               | Native client and web interfaces                                                                                                                                                                           |
| 28 | Smart Phone               | iOS and Android platforms                                                                                                                                                                                  |
| 29 | Intelligence by Cameras   | Perimeter breach detection, Region Entry/exit, Linger and dwell, Object detection, Abandoned/removed item alerts, Crowd density analysis, Queue monitoring.                                                |
| 30 | Backup Method             | USB device, network and Cloud                                                                                                                                                                              |
| 31 | User Access               | Supports up to 100 simultaneous users per server                                                                                                                                                           |
| 32 | System Integration        | Native integration with POS, PSIM, LDAP, access control, intrusion detection, and FAS (physical)                                                                                                           |
| 33 | Peripherals               | Includes keyboard and mouse                                                                                                                                                                                |
| 34 | Power Supply              | Max 100W, input voltage 100–240 VAC                                                                                                                                                                        |
| 35 | Environmental Conditions  | Operating temperature: 40°F to 95°F; humidity: 0% to 95% RH                                                                                                                                                |
| 36 | Regulatory Compliance     | BIS, CE, FCC, EMS, RoHS, TAA, NDAA compliant<br>These certifications must be valid at the time of bid submission.                                                                                          |
| 37 | Local Certifications      | Make in India product should have a certification from a BIS/STQC approved lab or equivalent International standard UL/EN/FCC/CE with equivalent IEC standard (IEC 62368-1) at the time of bid submission. |
| 38 | ISO Certification         | The OEM should be ISO 9001:2008, ISO 14001 and ISO 45001, ISO27001, IEC/ISA 62443-4-2, CMMI-Level 3, SOC -1 Certified Company. These certifications must be valid at the time of bid submission.           |

#### 10.2.9. Minimum Specifications of 64 NETWORK VIDEO RECORDER- NVR.

| S. No | Parameter       | Specification                                    |
|-------|-----------------|--------------------------------------------------|
| 1     | System Platform | Onboard Hosted Certified Software Applications   |
| 2     | Decoding Format | Supports H.264, H.265, MJPEG compression formats |

|    |                           |                                                                                                                                                                            |
|----|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3  | IP Video Input            | Minimum 16 Full HD (1920x1080p) IP video streams per unit                                                                                                                  |
| 4  | Audio Interface           | Built-in 1-channel audio input and 1-channel audio output for bi-directional audio                                                                                         |
| 5  | Operating System          | Microsoft Windows 10 or Windows 11                                                                                                                                         |
| 6  | OS Storage                | 256 GB SSD for system operations                                                                                                                                           |
| 7  | Network Bandwidth         | Continuous recording supported up to 350 Mbps IP throughput                                                                                                                |
| 8  | On-Screen Display (OSD)   | Displays camera name, timestamp, video loss, camera lock, motion detection, and recording status                                                                           |
| 9  | Recording Modes           | Manual, time-lapse, and scheduled recording options                                                                                                                        |
| 10 | Abnormality Alarm         | Supports recording, PTZ control, tour, alarm output, video push, email alerts, FTP upload, snapshot capture, buzzer activation, network loss, and video loss               |
| 11 | Supported Resolutions     | Compatible with 32MP, 20MP, 16MP, 12MP, 4K, 6MP, 5MP, 3MP, 2MP, 1.3MP, and 720P cameras                                                                                    |
| 12 | Video Display Split       | 1st Screen: 1/4/8/9/16/32 ; 2nd Screen: 1/4/8/9/16/32; 3rd Screen: 1/4/8/9/16/32/48.                                                                                       |
| 13 | API                       | ONVIF Profile S & M and API<br>OEM Should not be Banned/Blacklist by ONVIF for the past 10 years.<br>OEM Should be Member of ONVIF for period of Minimum 10 Years or More. |
| 14 | Local Display Performance | Up to 400 FPS at 1080P resolution                                                                                                                                          |
| 15 | Playback Sync             | Supports synchronized playback for 1, 4,8,16,32 & 64 channels; Object Attribute based search.                                                                              |
| 16 | Storage Bays              | Supports 2 internal HDDs                                                                                                                                                   |
| 17 | Storage Capacity          | Usable capacity up to 48 TB                                                                                                                                                |
| 18 | Monitor Outputs           | 2 x DisplayPort, 1 x HDMI, and 1 x VGA for triple monitor support                                                                                                          |
| 19 | Processor                 | Intel® Core i3 or higher                                                                                                                                                   |
| 20 | System Memory             | Minimum 8 GB RAM ( 16GB Upgradable)                                                                                                                                        |
| 21 | Failover Support          | N+1 Failover Redundancy                                                                                                                                                    |
| 22 | Thermal Management        | Equipped with 1 internal cooling fan                                                                                                                                       |
| 23 | Network Interface         | Dual 2.5 Gbps Ethernet ports                                                                                                                                               |
| 24 | Interface Ports           | 4 x USB 2.0, 2 x USB 3.1, and 2 x USB 3.2 ports                                                                                                                            |
| 25 | Client OS Compatibility   | Supports macOS (iOS), Windows 11, and Linux 22.00                                                                                                                          |
| 26 | Alarm I/O                 | external I/O module support                                                                                                                                                |
| 27 | PTZ control               | Native client and web interfaces                                                                                                                                           |
| 28 | Smart Phone               | iOS and Android platforms                                                                                                                                                  |
| 29 | Intelligence by Cameras   | Perimeter breach detection, Region Entry/exit, Linger and dwell, Object detection, Abandoned/removed item alerts, Crowd density analysis, Queue monitoring.                |
| 30 | Backup Method             | USB device, network and Cloud                                                                                                                                              |
| 31 | User Access               | Supports up to 100 simultaneous users per server                                                                                                                           |
| 32 | System Integration        | Native integration with POS, PSIM, LDAP, access control, intrusion detection, and FAS (physical)                                                                           |
| 33 | Peripherals               | Includes keyboard and mouse                                                                                                                                                |
| 34 | Power Supply              | Max 100W, input voltage 100–240 VAC                                                                                                                                        |

|    |                          |                                                                                                                                                                                                            |
|----|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 35 | Environmental Conditions | Operating temperature: 40°F to 95°F; humidity: 0% to 95% RH                                                                                                                                                |
| 36 | Regulatory Compliance    | BIS, CE, FCC, EMS, RoHS, TAA, NDAA compliant<br>These certifications must be valid at the time of bid submission.                                                                                          |
| 37 | Local Certifications     | Make in India product should have a certification from a BIS/STQC approved lab or equivalent International standard UL/EN/FCC/CE with equivalent IEC standard (IEC 62368-1) at the time of bid submission. |
| 38 | ISO Certification        | The OEM should be ISO 9001:2008, ISO 14001 and ISO 45001, ISO27001, IEC/ISA 62443-4-2, CMMI-Level 3, SOC -1 Certified Company. These certifications must be valid at the time of bid submission.           |

#### 10.2.10. FUNCTIONALITY of MINIMUM NETWORK VIDEO RECORDER FUNCTIONALITY

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1. NETWORK VIDEO RECORDER</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| The Network Video Recorder (NVR) will be used to access live and recorded video from multiple recording servers and IP cameras, as well as data from integrated subsystems connected to both local and wide area networks., The NVR software shall have a client/server-based architecture that can be configured as a standalone NVR system with the client software running on the server hardware and/or the client running on any network-connected TCP/IP workstation. Multiple client workstations shall be capable of simultaneously viewing live and/or recorded video from one or more servers. Multiple servers shall also be able to simultaneously provide live and/or recorded video to one or more workstations. |
| <b>A. Standard &amp; Certifications for Application.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| · ISO / IEC 14496 – MPEG-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| · ISO / IEC 14496–10, MPEG-4 Part 10 (ITU H.264).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| · ISO / IEC 10918 – JPEG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>B. Functionality of NVR</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| The NVR shall support a minimum of 500 thick clients, 12 web clients, and 12 mobile clients per NVR/server. There shall be no additional charges for concurrent client connections to the NVR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| The NVR should provide effective monitoring of video from IP cameras, IOTs, encoding devices, two-way audio and data in real time over local and wide area networks and should provide interactive and multi-level mapping as well.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| The NVR shall provide single-screen administration across multiple servers and systems, including global configuration and monitoring of camera, encoder, and storage settings across the enterprise and shall provide simultaneous administration of all users on multiple servers.                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| The NVR shall provide configuration of user authentication using LDAP/Active Directory features of the network.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| The NVR shall provide e-mail and text (SMS) notifications using SMTP Server configuration or Gateway.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| The NVR shall provide automatic identification and IP address assignment of compatible IP cameras and encoders with status display, the option to enable an embedded DHCP server to assign camera addresses via DHCP, it shall provide provisioned as a service without requiring any application to be running to operate and it shall also provide 2-way audio support between server, client, and cameras.                                                                                                                                                                                                                                                                                                                  |
| <b>C. Architecture</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

The NVR shall provide client/server-based architecture that can be configured as a standalone system, with the option to run the NVR on both Windows, Linux and other softwares etc. as required simultaneously. The client software shall be compatible with Windows, Linux, Android, mac OS etc., ensuring equal functionality on server hardware and/or any network-connected TCP/IP workstation.

The NVR software can be freely downloaded from the Manufacturer's official website at no cost, without the need for login credentials. This emphasizes the ease and accessibility of obtaining the NVR, ensuring that customers can download it effortlessly without any dependence or the need for support from the OEM or Contractor, if required.

The NVR software should be capable of running directly on an IP camera, eliminating any dependency on a server. This will enable the IP cameras to function as both a server and an IP video recording device.

The NVR should provide live video and audio, recorded video and audio and be able to configure the complete system all from a single application and Workstation.

The NVR should offer free both Web and a Mobile web Client, each operating without the need for any software installation. Both clients will include features such as live video viewing, recorded video playback, PTZ (pan-tilt-zoom) camera control, trigger activation, and support for simultaneous connections to multiple NVR servers. The transcode/decoding JPEG, H.264 and H.265 streams video into a JPEG file to optimize for browser screen compatibility before transmitting it to the client browser sent by NVR Server.

The NVR shall provide free mobile apps atleast for iOS and Android, offering features such as remote viewing of live and recorded video through the video server, PTZ control, and the ability to monitor and activate alarms and events from the mobile device. Additionally, the mobile apps will support simultaneous interaction with multiple NVRs, servers, and storage devices, as well as the monitoring of events configured by a client workstation as well.

The NVR software shall enable the simultaneous operation of multiple client applications on a single workstation, supporting at least 12 monitors, with each monitor displaying one client application.

#### **D. Operating System**

The NVR should be OS-agnostic, supporting installation on the latest Windows, Linux systems etc. Client access will be available via native apps for Windows, mac OS, Android, Linux etc. as well as through web browsers like Chrome, Firefox, Edge, Safari etc.

#### **E. Camera & Device Support**

The NVR should be pre-integrated at the API level and via ONVIF profiles maximum camera brands, ensuring seamless compatibility.

#### **F. Recording**

The NVR shall ensure continuous, uninterrupted recording of all video and audio and record based on Smart motion detection within a defined region, offer configurable pre & post -motion recording, and support video recording from IP cameras and integrated subsystems such as access control and intrusion alarm systems as well. The NVR should support inbuilt time-lapse recording for capturing video at configurable intervals, providing a condensed view of longer time periods.

#### **G. Video Bookmarking:**

A video bookmarking feature shall enable tagging, naming, and saving video clips, while the NVR will allow organizing related bookmarks into cases.

#### **H. Recording Storage:**

The NVR shall provide for recording of video as well as associated audio and data files, as determined by rules, events, or manual selection.

#### **The NVR shall support recording video based on the following classifications:**

Free run video (all video).

Time-lapse video @1 frame per second or less.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Video associated with motion events as detected by the device, Video associated to triggered alarm states as configured by Event Linking,                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| The NVR shall support the configuration of unique weekly recording schedules per camera,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| The NVR should also support a graphical representation of drive status for associated RAID-based storage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| The NVR should be capable of automatically recording video locally on the cameras SD card in the event of a network storage connectivity failure. Once the connectivity is restored, these locally recorded videos should seamlessly merge with the network storage recordings, ensuring no manual intervention is required to transfer the cameras SD card-based recordings to the network storage.                                                                                                                                                                           |
| <b>A. Storage Types:</b><br>The NVR shall support local HDD storage and iSCSI extended storage, allowing a remote storage unit to function as a local drive.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>B. Storage Retention:</b> The NVR shall support configurable "at most" rules to automatically delete video after a set time, and "at least" rules to prioritize preserving older video by deleting newer footage from other cameras.                                                                                                                                                                                                                                                                                                                                        |
| <b>C. Video Archiving:</b> The NVR shall support archiving of video, audio, and data based on rules, events, or manual selection, with customizable archive targets for specific cameras and video. It shall support CIFS and NFS network shares for storage, allowing archiving to multiple locations based on camera, event type, or schedule. Continuous or scheduled archiving with weekly and customizable schedules shall be supported.                                                                                                                                  |
| <b>D. Events –</b> The NVR software shall trigger actions based on events such as video motion, video loss, ASCII input (including POS data), device/system health, IP camera connection, NVR display triggers, analytics rules, and date/time.                                                                                                                                                                                                                                                                                                                                |
| The NVR shall trigger actions based on events, including video recording, output triggers, email alerts, SSL/TLS encryption, CD/DVD burning, and camera PTZ preset calls.                                                                                                                                                                                                                                                                                                                                                                                                      |
| NVR Shall support users can create rules based on a combination of events. The NVR client shall be configurable to automatically switch views on any event within the event monitoring function.                                                                                                                                                                                                                                                                                                                                                                               |
| The NVR shall support search and playback from the client interface, allowing users to search and view recorded video, audio, and events from multiple cameras simultaneously. Users can search by time, date, video source, image region, or event type, with results displayed on a clickable timeline. It should support synchronized audio and video playback, motion-based frame searches, visual thumbnail search, and zooming into specific time ranges. Archived videos will be seamlessly included in any search, eliminating the need for separate archive searches. |
| <b>H. Video and information display</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| The NVR should provide a live display mode for viewing live video, audio, POS data, and alarms. It will save the location of video, audio, maps, and event views, accessible in both live and recorded modes, and support automatic cycling through saved views for a video tour with configurable dwell times.                                                                                                                                                                                                                                                                |
| The NVR should support multiple video streams per device for video rendering. It will leverage the client workstation's GPU for video decoding and allow viewing of cameras in logical groups and preset views.                                                                                                                                                                                                                                                                                                                                                                |
| The NVR Shall support suspect tracking functionality to link specific areas of a live video panel with other cameras, tracking suspects or objects across multiple views. Cameras with tracking show an icon, and areas are marked with a color overlay. Double-clicking the overlay switches to the linked camera.                                                                                                                                                                                                                                                            |
| The NVR allows the viewing of live videos from guard tour sequences. The NVR shall support the use of a panoramic lens on an analog or IP camera. The NVR client should de-warp the image on both live and recorded video.                                                                                                                                                                                                                                                                                                                                                     |
| The NVR shall be capable of organizing the camera video view panel in various customized layout patterns and support viewing minimum 48 cameras (8x6) on widescreen 16:9 display panels.                                                                                                                                                                                                                                                                                                                                                                                       |
| The NVR shall provide the ability to instantly push selected cameras, layouts, tours, groups or entire views to another client monitor, such as a public view monitor or a video wall, with the additional                                                                                                                                                                                                                                                                                                                                                                     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| capability, tie push to user permissions, selectively disable receiving of pushed views.                                                                                                                                                                                                                                                                                                                                                                                                      |
| The NVR shall display overlay controls when hovering over a camera in live view. These controls will allow customization of text color, font, style, transparency, and location, and include options for audio inputs/outputs, alarm outputs, input events, soft triggers, serial data, and manual recording.                                                                                                                                                                                 |
| System information should be capable of displaying on a single page to include status of all recording servers and cameras alarms, events, MAC addresses, camera configuration, format and frame rate from each individual camera.                                                                                                                                                                                                                                                            |
| The NVR shall display notifications to users for essential setup tasks, including configuring motion on all cameras, changing the default password, setting up email notifications, configuring multithreading, and adjusting the time delta between the server and camera.                                                                                                                                                                                                                   |
| <b>J. Pan Tilt Zoom (PTZ)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| The NVR allows authorized users to control PTZ cameras with adjustable speed for panning, tilting, and zooming. Non-PTZ cameras can be digitally panned, tilted, and zoomed in live and recorded modes. Control methods for PTZ cameras include PTZ graphics windows, live overlay icons, keyboard controls, presets, digital PTZ, and USB joystick or mouse control.                                                                                                                         |
| <b>K. Mapping</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| The NVR shall provide map functionality for authorized users, displaying video sources and their status, with adjustable FOV visualization for cameras. It shall support nested maps, sending event alerts to parent maps and changing icon colors. Soft triggers can be placed, viewed, and activated directly from the map.                                                                                                                                                                 |
| <b>L. Export</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| The NVR software shall support exporting video, maps, POS data, and audio files without overwriting previous exports, with supported formats including .exe, .avi, .ps, .mov, and .psx. It shall allow exporting video segments from specific cameras or audio inputs to a CD or DVD or USB upon an event. The NVR standalone player shall package exported video into a single executable file and use a keyed Hash Message Authentication Code (HMAC) to verify the integrity of the video. |
| <b>M. Administration and Configuration</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| The NVR shall support user administration with authentication via Active Directory, LDAP, or username/password, and allow permission configuration across multiple servers. It shall enable granular permissions through custom user groups and maintain an audit trail of logins, actions, video views, and exports.                                                                                                                                                                         |
| <b>N. Health Dashboard</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| The system should offer a browser-based dashboard to monitor the health and events of storage servers and connected cameras, including video loss, Smart motion detection, camera disconnection, camera analytics, and recording alarms.                                                                                                                                                                                                                                                      |
| The system should provide a browser-based dashboard to monitor health and events for storage servers and connected cameras, including alarms for device failure, temperature, network activity, power supply, storage, updates, and security integration.                                                                                                                                                                                                                                     |
| Provides a configurable schedule to perform server tasks. Schedule server software updates. Schedule server configuration backup from a single server or in bulk. Schedule server configuration restoration from a single server or in bulk. Schedule maintenance for a server or multiple servers. Import a license to a server or multiple servers.                                                                                                                                         |
| The system shall allow for camera inspection. The system shall allow an image from a camera connected to a monitored server to be stored as the reference image. The system shall compare a reference image to a current image on demand.                                                                                                                                                                                                                                                     |
| Reports: Allows creation of reports to: View and manage a list of unacknowledged events. View a list of open events. Search for specific events based on various criteria. Allows events to be searched based on various criteria, including event time, event type, and associated cameras and servers. Permits viewing of server licenses.                                                                                                                                                  |
| <b>O. Video Analytics</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A Network Video Recorder (NVR) shall support Video Analytics such as Object Detected, Perimeter, Linger, Dwell, Abandoned / Removed, Enter, Exit, Crowd, Queue Object. In case of cameras edge-based Video analytics, it should be seamlessly integrated over API/SDK with offer centralized NVR platform.                                                                                                                                                                                                                                                                                                                                     |
| The Network Video Recorder (NVR) shall support Object Classifications: Person, Bicycle, Bus, Car, Motorbike, Train, Truck, Any Class. Object Sub-Classifications: Person Clothing Color, Vehicle Color. In case of cameras edge-based Video analytics, it should be seamlessly integrated over API/SDK with offer NVR platform.                                                                                                                                                                                                                                                                                                                |
| The Network Video Recorder (NVR) shall support Alarm trigger from cameras such as Smart Motion detection, AI video analytics, Alarm input, Blur Detection, Tamper Detection, Pre-Alarm Recording & MP4 Recording Format and same should be notified in the Web Client and Mobile app.                                                                                                                                                                                                                                                                                                                                                          |
| The Network Video Recorder (NVR) shall support Backfill functionality of the cameras - In the event of failure of connectivity to the network storage the camera shall record video locally on the cameras SD card automatically and after the connectivity is restored with central Video Recorder, these recordings shall be automatically merged with the Video Recorder such that no manual intervention is required to transfer the SD card-based recordings to Video Recorder.                                                                                                                                                           |
| <b>P. Updates –</b><br>The manufacturer shall deliver timely NVR software updates and provide the ability to update directly via network connectivity. The software should support updates without losing configurations and allow updating from within the software or through an executable program.                                                                                                                                                                                                                                                                                                                                         |
| <b>Q. Redundancy &amp; Failover</b><br>The NVR should provide failover capabilities to ensure continuous video recording and operation in case of server failure. It should support Dual-server (N+1) failover configurations shall be supported, ensuring uninterrupted operation across all video streams.<br>The system shall allow the configuration of servers for failovers. Server may be configured as a spare. Spare server may be added to a Failover Group. Failover Group will include servers covered by the spare to failover to in the case of failure. On server recovery, the spare shall fallback and return to spare status |
| <b>R. Integration &amp; API Support</b><br>The NVR should support integration with external security systems such as access control, intrusion detection, fire alarms, and building management systems. The NVR shall provide APIs and SDKs for custom integrations with other systems, such as custom alarms, reporting, or video analytics systems.                                                                                                                                                                                                                                                                                          |
| <b>S. Audit Report :</b><br>records an audit trail of when users log in that shows what changes they have made, what video they have viewed and what they have exported                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>T. Database compatibility: Open Source and any other which is widely used in India</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>U. Cloud Compatibility &amp; Scalability</b><br>The NVR must be Cloud ready from day one and Subscription must be available as on required. The NVR shall have Cloud-to-Client (C2C) based architecture. it should be scalable to Cloud Storage & shall also be able to simultaneously provide live and/or recorded video to one or more Client workstations and Subscription must be available as on required. NVR shall be scalable to Utilize Cloud storage and Subscription must be available as on required. NVR shall be able to Customize cloud storage by choosing specific cameras to upload video to the cloud.                   |
| <b>V. Cyber Security</b><br>The NVR software provides a configuration option to require 2 users enter unique passwords to authorize tasks involving the viewing of video.<br>The NVR software shall support SSL/TLS encryption.<br>The OEM must have established manufacturing and warehouse facilities in India, along with a fully operational RMA center and toll-free technical support services within the country. These facilities and support infrastructure should have been consistently operational in India for a minimum of the past 10 years.                                                                                    |

The Intellectual Property Rights & Source Code of Offered Network Video Recorder (NVR) must not reside in a Country that is sharing Land Border with India as per Department for Promotion of Industry and Internal Trade (DPIIT)'s Competent Authority- Rule 144(xi) of the General Financial Rules 2017.

#### 10.2.11. Indicative Minimum UPS Specification for All in one Desktop

|   |                                                                                                                       |
|---|-----------------------------------------------------------------------------------------------------------------------|
| 1 | 2 KVA                                                                                                                 |
| 2 | Back Up-Minimum 3 hours                                                                                               |
| 3 | Input Voltage and Voltage Range and Frequency-220V AC/ 230V AC and Voltage range and frequency as per the requirement |
| 4 | Output Voltage (Battery Mode)-220V AC/ 230V AC +/- 10% and Voltage range and frequency as per the requirement         |
| 5 | External Battery Voltage and Max Charge Current-12V and 5A/10A/15A/20A (Adjustable)                                   |
| 6 | Indicators and Alarms-Standards                                                                                       |
| 7 | Protection-Overload, Discharge and Overcharge Protection                                                              |

#### 10.2.12. Specifications for 8 Port PoE switch

| Sr. No | Minimum Specification 8 Port PoE Switch                                                                                                                                                                                                                                                                                                                                                                       | Compliance (Yes / No) |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
|        | Min 8x1G Base T port , 2x100/1000 SFP ports , Min 130 Watt PoE/PoE+ power budget , Must Support Static Route RIP , OSPF from day 1 ready ,IPV4/IPV6 dual stack ready, less than 50 millisecond convergence , ISSU , operating temperature 0-50 Degree C , FCC, ROHS,CE ,IGMPv1/v2/v3,MVR,DHCP Server & Client. The proposed switches should have option to be managed by cloud with out changing the hardware |                       |
| A      | Min 8 GE port , 2x100/1000 SFP ports , Must have physical Reset button for ease of maintenance .Fanless/noise free operation .Min 20 Gbps backplane and 15 Mpps forwarding rate .                                                                                                                                                                                                                             |                       |
| B      | Min 130 Watt PoE/PoE+ power budget                                                                                                                                                                                                                                                                                                                                                                            |                       |
| C      | Must Support Static Routing , RIP , OSPF from day 1 ready .                                                                                                                                                                                                                                                                                                                                                   |                       |
| D      | GMPv1/v2/v3,MVR,DHCP Server & Client.                                                                                                                                                                                                                                                                                                                                                                         |                       |
| E      | MTBF should be more than 50000 Hrs                                                                                                                                                                                                                                                                                                                                                                            |                       |
| F      | Min 8 K MAC address                                                                                                                                                                                                                                                                                                                                                                                           |                       |
| G      | Min 9K jumbo Frame                                                                                                                                                                                                                                                                                                                                                                                            |                       |
| H      | Min 4 K Active VLAN                                                                                                                                                                                                                                                                                                                                                                                           |                       |
| I      | DHCP Server & Client                                                                                                                                                                                                                                                                                                                                                                                          |                       |
| J      | 802.1W (RSTP)and 802.1S (MSTP),802.1D (STP)                                                                                                                                                                                                                                                                                                                                                                   |                       |
| K      | MVR, IGMPv1,IGMP v2,IGMPv3,QinQ,Voice VLAN, Private VLAN ,SVI, Access control List/ACL based on L2-L7 traffic/data                                                                                                                                                                                                                                                                                            |                       |
| L      | CAR, HQoS, MAC/IP/TCP/UDP/VLAN/ COS/DSCP/TOS based<br>QoS, 802.1P/DSCP priority relabelling, SP, WRR, WRED, flow monitoring and traffic shaping                                                                                                                                                                                                                                                               |                       |
| M      | Less than 50 Millisecond Convergence , Rapid spanning Tree ,Link Aggregation /LACP.                                                                                                                                                                                                                                                                                                                           |                       |
| N      | L2/L3/L4 ACL flow identification and filtration Anti-attack from DDoS, TCP's SYN Flood, Flood,Md5, SHA-256, RSA-1024, AES256,TCP's SYN Flood, UDP                                                                                                                                                                                                                                                             |                       |

|   |                                                                                                                                                                                                                                          |  |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|   | Flood, Sticky MAC, DHCP Snooping, Port isolation , DAI ,DHCP Snooping option 82 , PPPOE+ for router / modem connection ,Broadcast storm control , Unicast storm control , TACACS+                                                        |  |
| O | Console, Telnet, SSH v1/2, HTTP, HTTPS SNMP v1/v2/v3, RMON,IPV4/IPv6 Dual stack ,NTP.                                                                                                                                                    |  |
| P | ZTP (Zero Touch Provisioning)                                                                                                                                                                                                            |  |
| Q | TFTP, FTP, SFTP                                                                                                                                                                                                                          |  |
| R | Switch should be able to support management via CLI, Web interface, all switches should have same operating system. Switches should have option to be managed by cloud infrastructure without replacing the hardware in future required. |  |

### 10.2.13. 24 Port 10/100/1000 Switch

| 24 port 10/100/1000 with 4x10G uplink ports |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                       |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| S.No                                        | Short Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Compliance (Yes / No) |
|                                             | Supply, Installation, Testing & Commissioning of 24 x 1G SFP ,8 X10/100/1000 Base T either exclusive or in combo with 1G SFP ports plus 4 x 1/10GSFP+ ports. Should have 230V AC PSU . Should support 10 Gbps Copper module on SFP+ port for flexibility to utilize. Switching capacity of Min 128 Gbps, forwarding performance of min 95 Mpps, should have non-blocking architecture 16K MAC address. Should have Static Routing, RIP, VRRP, OSPF from day 1, Should support ISSU from day 1, Should support stacking with min 12 members in a stack/Virtual Stack, Neighbour discovery, system logging, Telnet, SSH, SNMP, Network Time Protocol (NTP), IPv6 features from day 1, MTBF Min 198000 Hr. Switches should have option to be managed by cloud infrastructure without replacing the hardware in future required |                       |
| S. No.                                      | Detailed Minimum Technical Specifications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |
| A                                           | Solution Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                       |
|                                             | The Switch should support non-blocking Layer 2 switching and Layer 3 routing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |
|                                             | These switches should support stacking/VC /Equivalent technology for min 12Members                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       |
| B                                           | Hardware and Interface Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       |
|                                             | Minimum 24 x 1G SFP ,8 X10/100/1000 Base T either exclusive or in combo with 1G SFP ports plus 4 x 1/10GSFP+ ports. Should support 10 Gbps Copper module on SFP+ port for flexibility to utilize. Fiber module should be from the same make. Should come with stacking accessories.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       |
|                                             | The Switch should have non-blocking architecture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |
|                                             | 128Gbps or higher Backplane capacity and minimum 95 Mpps of forwarding rate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       |
|                                             | Should support non-blocking hardware architecture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       |
|                                             | All interfaces should provide wire speed forwarding for both Fiber and copper modules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                       |
|                                             | Support for at least 4000 VLANs & 16K MAC address                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                       |
| C                                           | Layer2 & Layer 3 Features                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |
|                                             | It should support IGMP snooping v1, v2 & v3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       |

|   |                                                                                                                                                                                                                                          |  |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|   | It should have Static Routing, RIP, VRRP, OSPF from day 1                                                                                                                                                                                |  |
|   | Switch should support Jumbo Frame                                                                                                                                                                                                        |  |
|   | Dynamic Host Configuration Protocol (DHCP) snooping                                                                                                                                                                                      |  |
|   | Switch should support LLDP capabilities                                                                                                                                                                                                  |  |
|   | Should support Port Isolation, Port binding against IP and MAC, should have technology like Sticky MAC feature for traffic utilization, DHCP Snooping, Option 82,                                                                        |  |
|   | Should have mechanism from DDoS attack prevention, SYN flood protection, MD5, SHA-256                                                                                                                                                    |  |
|   | Should support Secure Shell (SSH) Protocol and Simple Network Management Protocol Version 3 (SNMPv3).                                                                                                                                    |  |
|   | Should support less than 50 Millisecond convergence for ring based on G.8032/Equivalent, Support for ISSU, MPLS                                                                                                                          |  |
|   | Switch needs to have console port for administration & management                                                                                                                                                                        |  |
|   | Management using CLI, GUI using Web interface should be supported                                                                                                                                                                        |  |
|   | FTP/TFTP for upgrading the operating System                                                                                                                                                                                              |  |
|   | IEEE 802.1x, Radius support                                                                                                                                                                                                              |  |
|   | IEEE 802.1D Spanning-Tree Protocol, UDLD                                                                                                                                                                                                 |  |
|   | IEEE 802.1p class-of-service (Cos) prioritization, DSCP, TOS                                                                                                                                                                             |  |
|   | IEEE 802.1Q VLAN, QinQ                                                                                                                                                                                                                   |  |
|   | IEEE 802.3u 100BASE-TX specification                                                                                                                                                                                                     |  |
| D | Manageability                                                                                                                                                                                                                            |  |
|   | Switch should be able to support management via CLI, Web interface, all switches should have same operating system. Switches should have option to be managed by cloud infrastructure without replacing the hardware in future required. |  |
|   | ZTP (Zero touch Provisioning), NTP, RSPAN, DHCP Server, DHCP Relay, 802.3ah, 802.1ag, sflow/NetFlow                                                                                                                                      |  |
|   | Switch should be manageable through both IPv4 & IPv6. IPv4/IPv6 Dual Stack, ISATAP Tunnel                                                                                                                                                |  |
|   | Operating temperature 0-50 Degree C                                                                                                                                                                                                      |  |
| E | Safety & Compliance                                                                                                                                                                                                                      |  |
|   | RoHS, CE, FCC. Fiber module should be from the same OEM for seamless integration. Operating system of all the switches should be same for ease of maintenance                                                                            |  |

#### 10.2.14. 24 Port PoE+ Switch

| 24 Port PoE + switch Access switch |                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| S.No                               | 24 port 10/100/1000 PoE+ with 6x10G uplink ports                                                                                                                                                                                                                                                                                                                                                                                        | Compliance (Yes / No) |
|                                    | Short Description                                                                                                                                                                                                                                                                                                                                                                                                                       |                       |
|                                    | Supply, Installation, Testing & Commissioning of 24 x 1G and 6 x 1/10GSFP+ ports. PoE+ switch with min 370 Watt PoE+ budget. Should have RPS option from day 1. Should have option for AC and DC PSU mix environment for power source resiliency. Should support 10 Gbps Copper module on SFP+ port for flexibility to utilize. Switching capacity of 168 Gbps, forwarding performance 124 Mpps, should have non-blocking architecture, |                       |

|               |                                                                                                                                                                                                                                                                                                     |  |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|               | 16K MAC address. Should have Static Routing, RIP, VRRP, OSPF from day 1, Should support ISSU from day 1, Should support stacking with min 12 members in a stack, Neighbour discovery, system logging, Telnet, SSH, SNMP, Network Time Protocol (NTP), IPv6 features from day 1, MTBF Min 198000 Hr. |  |
| <b>S. No.</b> | <b>Detailed Minimum Technical Specifications</b>                                                                                                                                                                                                                                                    |  |
| <b>A</b>      | <b>Solution Requirement</b>                                                                                                                                                                                                                                                                         |  |
|               | The Switch should support non-blocking Layer 2 switching and Layer 3 routing                                                                                                                                                                                                                        |  |
|               | These switches should support stacking/VC /Equivalent technology for min 12Members                                                                                                                                                                                                                  |  |
| <b>B</b>      | <b>Hardware and Interface Requirement</b>                                                                                                                                                                                                                                                           |  |
|               | Minimum 24 x 1G PoE+ and 6x 1/10GSFP+ ports. Should support 10 Gbps Copper module on SFP+ port for flexibility to utilize. Fiber module should be from the same make. Should come with stacking accessories.                                                                                        |  |
|               | The Switch should have non-blocking architecture                                                                                                                                                                                                                                                    |  |
|               | 168 Gbps or higher Backplane capacity and minimum 124 Mpps of forwarding rate                                                                                                                                                                                                                       |  |
|               | Should support non-blocking hardware architecture                                                                                                                                                                                                                                                   |  |
|               | All interfaces should provide wire speed forwarding for both Fiber and copper modules                                                                                                                                                                                                               |  |
|               | Support for at least 4000 VLANs & 16K MAC address                                                                                                                                                                                                                                                   |  |
| <b>C</b>      | <b>Layer2 &amp; Layer 3 Features</b>                                                                                                                                                                                                                                                                |  |
|               | It should support IGMP snooping v1, v2 & v3                                                                                                                                                                                                                                                         |  |
|               | It should have Static Routing, RIP, VRRP, OSPF from day 1                                                                                                                                                                                                                                           |  |
|               | Switch should support Jumbo Frame                                                                                                                                                                                                                                                                   |  |
|               | Dynamic Host Configuration Protocol (DHCP) snooping                                                                                                                                                                                                                                                 |  |
|               | Switch should support LLDP capabilities                                                                                                                                                                                                                                                             |  |
|               | Should support Port Isolation, Port binding against IP and MAC, should have technology like Sticky MAC feature for traffic utilization, DHCP Snooping, Option 82,                                                                                                                                   |  |
|               | Should have mechanism from DDoS attack prevention, SYN flood protection, MD5, SHA-256                                                                                                                                                                                                               |  |
|               | Should support Secure Shell (SSH) Protocol and Simple Network Management Protocol Version 3 (SNMPv3).                                                                                                                                                                                               |  |
|               | Should support less than 50 Millisecond convergence for ring based on G.8032/Equivalent, Support for ISSU, MPLS                                                                                                                                                                                     |  |
|               | Switch needs to have console port for administration & management                                                                                                                                                                                                                                   |  |
|               | Management using CLI, GUI using Web interface should be supported                                                                                                                                                                                                                                   |  |
|               | FTP/TFTP for upgrading the operating System                                                                                                                                                                                                                                                         |  |
|               | IEEE 802.1x, Radius support                                                                                                                                                                                                                                                                         |  |
|               | IEEE 802.1D Spanning-Tree Protocol, UDLD                                                                                                                                                                                                                                                            |  |
|               | IEEE 802.1p class-of-service (Cos) prioritization, DSCP, TOS                                                                                                                                                                                                                                        |  |
|               | IEEE 802.1Q VLAN, QinQ                                                                                                                                                                                                                                                                              |  |
|               | IEEE 802.3u 100BASE-TX specification                                                                                                                                                                                                                                                                |  |
| <b>D</b>      | <b>Manageability</b>                                                                                                                                                                                                                                                                                |  |

|   |                                                                                                                                                                                                                                          |  |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|   | Switch should be able to support management via CLI, Web interface, all switches should have same operating system. Proposed switches should have option to be managed by cloud infrastructure without replacing the hardware in future. |  |
|   | ZTP (Zero touch Provisioning), NTP, RSPAN, DHCP Server, DHCP Relay, 802.3ah, 802.1ag, sflow/NetFlow                                                                                                                                      |  |
|   | Switch should be manageable through both IPv4 & IPv6. IPv4/IPv6 Dual Stack, ISATAP Tunnel                                                                                                                                                |  |
|   | Operating temperature 0-50 Degree C                                                                                                                                                                                                      |  |
| E | Safety & Compliance                                                                                                                                                                                                                      |  |
|   | RoHS, CE, FCC                                                                                                                                                                                                                            |  |

#### 10.2.15. 24 port 10/100/1000 PoE+ with 6x10G uplink Port Switch

| 24 Port PoE + multirate PoE switch |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| S.No                               | 24 port 10/100/1000 PoE+ with 6x10G uplink ports                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Compliance (Yes / No) |
|                                    | Short Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       |
|                                    | Supply, Installation, Testing & Commissioning of 24 x 2.5G and 6 x 1/10GSFP+ ports. PoE+ switch with min 740 Watt PoE+ budget .Should have min 8 Ports catering IEEE 802.3bt standard (POE++) . All ports should support PoE+ (IEEE 802.3at standard).Should have AC PSU option from day 1. Should support 10 Gbps Copper module on SFP+ port for flexibility to utilize. Switching capacity of 240 Gbps, forwarding performance 177Mpps, should have non-blocking architecture, 32K MAC address. Should have Static Routing, RIP, VRRP, OSPF from day 1, Should support ISSU from day 1, Should support stacking with min 12 members in a stack, Neighbour discovery, system logging, Telnet, SSH, SNMP, Network Time Protocol (NTP), IPv6 features from day 1, MTBF Min 198000 Hr. |                       |
| S. No.                             | Detailed Minimum Technical Specifications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |
| A                                  | Solution Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       |
|                                    | The Switch should support non-blocking Layer 2 switching and Layer 3 routing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       |
|                                    | These switches should support stacking/VC /Equivalent technology for min 12Members                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |
| B                                  | Hardware and Interface Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                       |
|                                    | Minimum 24 x 2.5G and 6x 1/10GSFP+ ports. Should support 10 Gbps Copper module on SFP+ port for flexibility to utilize. Fiber module should be from the same make. Should come with stacking accessories.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |
|                                    | The Switch should have non-blocking architecture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                       |
|                                    | 240Gbps or higher Backplane capacity and minimum 177 Mpps of forwarding rate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                       |
|                                    | Should support non-blocking hardware architecture                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       |
|                                    | All interfaces should provide wire speed forwarding for both Fiber and copper modules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       |
|                                    | Support for at least 4000 VLANs & 32K MAC address                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                       |
| C                                  | Layer2 & Layer 3 Features                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |
|                                    | It should support IGMP snooping v1, v2 & v3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       |

|   |                                                                                                                                                                                                                                          |  |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|   | It should have Static Routing, RIP, VRRP, OSPF from day 1                                                                                                                                                                                |  |
|   | Switch should support Jumbo Frame                                                                                                                                                                                                        |  |
|   | Dynamic Host Configuration Protocol (DHCP) snooping                                                                                                                                                                                      |  |
|   | Switch should support LLDP capabilities                                                                                                                                                                                                  |  |
|   | Should support Port Isolation, Port binding against IP and MAC, should have technology like Sticky MAC feature for traffic utilization, DHCP Snooping, Option 82,                                                                        |  |
|   | Should have mechanism from DDoS attack prevention, SYN flood protection, MD5, SHA-256                                                                                                                                                    |  |
|   | Should support Secure Shell (SSH) Protocol and Simple Network Management Protocol Version 3 (SNMPv3).                                                                                                                                    |  |
|   | Should support less than 50 Millisecond convergence for ring based on G.8032/Equivalent, Support for ISSU, MPLS                                                                                                                          |  |
|   | Switch needs to have console port for administration & management                                                                                                                                                                        |  |
|   | Management using CLI, GUI using Web interface should be supported                                                                                                                                                                        |  |
|   | FTP/TFTP for upgrading the operating System                                                                                                                                                                                              |  |
|   | IEEE 802.1x, Radius support                                                                                                                                                                                                              |  |
|   | IEEE 802.1D Spanning-Tree Protocol, UDLD                                                                                                                                                                                                 |  |
|   | IEEE 802.1p class-of-service (Cos) prioritization, DSCP, TOS                                                                                                                                                                             |  |
|   | IEEE 802.1Q VLAN, QinQ                                                                                                                                                                                                                   |  |
|   | IEEE 802.3u 100BASE-TX specification                                                                                                                                                                                                     |  |
| D | Manageability                                                                                                                                                                                                                            |  |
|   | Switch should be able to support management via CLI, Web interface, all switches should have same operating system. Proposed switches should have option to be managed by cloud infrastructure without replacing the hardware in future. |  |
|   | ZTP (Zero touch Provisioning), NTP, RSPAN, DHCP Server, DHCP Relay, 802.3ah, 802.1ag, sflow/NetFlow                                                                                                                                      |  |
|   | Switch should be manageable through both IPv4 & IPv6. IPv4/IPv6 Dual Stack, ISATAP Tunnel                                                                                                                                                |  |
|   | Operating temperature 0-50 Degree C                                                                                                                                                                                                      |  |
| E | Safety & Compliance                                                                                                                                                                                                                      |  |
|   | RoHS, CE, FCC                                                                                                                                                                                                                            |  |

#### 10.2.16. 10G SFP+

|   | 10G SFP+ Single mode module                                                                                | Compliance |
|---|------------------------------------------------------------------------------------------------------------|------------|
| A | 10G SFP+ single mode (10Km, 1310nm, LC, DDM), Min 0-60 Degree C supported of same make of offered switches |            |

#### 10.2.17. 1G SFP

|   | 1G SFP Single mode module                                                                                     | Compliance |
|---|---------------------------------------------------------------------------------------------------------------|------------|
| A | Gigabit SFP single mode (10Km, 1310nm, LC, DDM), Min 0-60 Degree C supported of same make of offered switches |            |

### 10.2.18. Junction Box

| Specifications for Junction Box Wall/Pole Mount Outdoor Rated for Warehouses |                    |                                                                                                                                                                                 |
|------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SI.                                                                          | Parameters         | Minimum Requirements                                                                                                                                                            |
| 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    | Minimum Two or more                                                                                                                                                             |
| 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 |
| 6                                                                            | Form Factor        | Rack Mount/DIN Rail                                                                                                                                                             |
| 7                                                                            | 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.                              |

### 10.2.19. 9U Wall Mount Rack

| S. No. | Technical Parameters                                                                                                        | Compliance (Yes/No) |
|--------|-----------------------------------------------------------------------------------------------------------------------------|---------------------|
| 1      | Wall Mount Steel Racks shall be designed for Networking, Servers, Data Centre's, Audio Video, Telecom and Lab applications. |                     |
| 2      | Racks should be made out of CRCA steel, and proceeded with CNC Punching, forming, welding and powder coated.                |                     |
| 3      | Rack Features                                                                                                               |                     |
| 4      | Adjustable 19" equipment mounting verticals provide better mounting flexibility and maximizes the usable mounting space     |                     |
| 5      | Depth adjustable mounting slots.                                                                                            |                     |
| 6      | Top and bottom panel with ventilation and cable entry facility.                                                             |                     |
| 7      | Powder coated finish with pretreatment process meeting all industry standards.                                              |                     |
| 8      | 100% assured compatibility with all equipment conforming to DIN 41494. General industrial standard for equipment.           |                     |
| 9      | Rack Standard : Conforms to DIN 41494 or equivalent ISO standard                                                            |                     |
| 10     | Construction : Welded                                                                                                       |                     |
| 11     | Front Door : Lockable Toughened Glass Door                                                                                  |                     |
| 12     | Basic Frame : Steel                                                                                                         |                     |
| 13     | Equipment Mounting : DIN Standard                                                                                           |                     |
| 14     | Mounting Angle : 19" Mounting angles made of formed steel                                                                   |                     |
| 15     | Standard Finish : Powder Coated                                                                                             |                     |
| 16     | Top and Bottom Cover : Welded to Frame, Vented and Field Cable entry exit cut outs                                          |                     |
| 17     | Standard Color : Black/Gray                                                                                                 |                     |
| 18     | Static Load : 30 kgs                                                                                                        |                     |
| 19     | Below mentioned Standard Accessories shall be supplied with Rack                                                            |                     |
| 20     | Power Distribution Units.                                                                                                   |                     |

|    |                        |  |
|----|------------------------|--|
| 21 | Cable Manager.         |  |
| 22 | Fans                   |  |
| 23 | Mounting Hardware      |  |
| 24 | Rack Dimensions        |  |
| 25 | 9U - 550mm W x 500mm D |  |

#### 10.2.20. 15U Wall Mount Rack

| S. No. | Technical Parameters                                                                                                        | Compliance (Yes/No) |
|--------|-----------------------------------------------------------------------------------------------------------------------------|---------------------|
| 1      | Wall Mount Steel Racks shall be designed for Networking, Servers, Data Centre's, Audio Video, Telecom and Lab applications. |                     |
| 2      | Racks should be made out of CRCA steel, and proceeded with CNC Punching, forming, welding and powder coated.                |                     |
| 3      | Rack Features                                                                                                               |                     |
| 4      | Adjustable 19" equipment mounting verticals provide better mounting flexibility and maximizes the usable mounting space     |                     |
| 5      | Depth adjustable mounting slots.                                                                                            |                     |
| 6      | Top and bottom panel with ventilation and cable entry facility.                                                             |                     |
| 7      | Powder coated finish with pretreatment process meeting all industry standards.                                              |                     |
| 8      | 100% assured compatibility with all equipment conforming to DIN 41494. General industrial standard for equipment.           |                     |
| 9      | Rack Standard : Conforms to DIN 41494 or equivalent ISO standard                                                            |                     |
| 10     | Construction : Welded                                                                                                       |                     |
| 11     | Front Door : Lockable Toughened Glass Door                                                                                  |                     |
| 12     | Basic Frame : Steel                                                                                                         |                     |
| 13     | Equipment Mounting : DIN Standard                                                                                           |                     |
| 14     | Mounting Angle : 19" Mounting angles made of formed steel                                                                   |                     |
| 15     | Standard Finish : Powder Coated                                                                                             |                     |
| 16     | Top and Bottom Cover : Welded to Frame, Vented and Field Cable entry exit cut outs                                          |                     |
| 17     | Standard Color : Black/Gray                                                                                                 |                     |
| 18     | Static Load : 30 kgs                                                                                                        |                     |
| 19     | Below mentioned Standard Accessories shall be supplied with Rack                                                            |                     |
| 20     | Power Distribution Units.                                                                                                   |                     |
| 21     | Cable Manager.                                                                                                              |                     |
| 22     | Fans                                                                                                                        |                     |
| 23     | Mounting Hardware                                                                                                           |                     |
| 24     | Rack Dimensions                                                                                                             |                     |
| 25     | 15U - 550mm W x 500mm D                                                                                                     |                     |

#### 10.2.21. 22U Floor Mount Rack

| S. No. | Technical Parameters | Compliance (Yes/No) |
|--------|----------------------|---------------------|
|--------|----------------------|---------------------|

|     |                                                                                                                                                   |  |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 1.  | Supply, Installation, Testing & Commissioning of 22U Floor Mount Rack                                                                             |  |
| 2.  | Floor Mount Steel Racks shall be designed for Networking, Servers, Data Centre's, Audio Video, Telecom and Lab applications.                      |  |
| 3.  | Racks should be made out of CRCA steel, and proceeded with CNC Punching, forming, welding and powder coated to meet Industrial requirements also. |  |
| 4.  | Floor mount racks should have ventilated top and bottom cover with cut-out for cable access.                                                      |  |
| 5.  | Rack Features                                                                                                                                     |  |
| 6.  | Adjustable 4 Nos 19" angles with punched 10mm square holes and universal 12.7mm                                                                   |  |
| 7.  | Depth adjustable mounting slots.                                                                                                                  |  |
| 8.  | Top and bottom panel with ventilation and cable entry facility.                                                                                   |  |
| 9.  | Powder coated finish with pretreatment process meeting all industry standards.                                                                    |  |
| 10. | 100% assured compatibility with all equipment conforming to DIN 41494. General industrial standard for equipment.                                 |  |
| 11. | Rack Standard: Conforms to DIN 41494 or equivalent standard                                                                                       |  |
| 12. | Construction: Welded OR CKD (Knock Down)                                                                                                          |  |
| 13. | Front Door: Lockable Toughened Glass Door, Steel Single, Steel Dual                                                                               |  |
| 14. | Basic Frame: Steel                                                                                                                                |  |
| 15. | Equipment Mounting: DIN Standard 10mm Sq. Slots / Direct M6 Tap                                                                                   |  |
| 16. | Mounting Angle : 19" Mounting angles made of formed steel                                                                                         |  |
| 17. | Standard Finish: Powder Coated                                                                                                                    |  |
| 18. | Top and Bottom Cover: Welded to Frame, Vented and Field Cable entry exit cut outs                                                                 |  |
| 19. | Mounting Option : Castor wheels (Front 2 wheels with Break and rear without break) Or Levelers Or Base plinth                                     |  |
| 20. | Standard Color : Black                                                                                                                            |  |
| 21. | Static Load : 500 kgs                                                                                                                             |  |
| 22. | Below mentioned Standard Accessories shall be supplied with Rack                                                                                  |  |
| 23. | Doors & Side Panels                                                                                                                               |  |
| 24. | Power Distribution Units.                                                                                                                         |  |
| 25. | Cable Manager, 2 Nos                                                                                                                              |  |
| 26. | Fans and Fan Modules.                                                                                                                             |  |
| 27. | Stationary Shelf                                                                                                                                  |  |
| 28. | Jacking Feet                                                                                                                                      |  |
| 29. | Mounting Hardware 2 sets                                                                                                                          |  |
| 30. | Rack Dimensions                                                                                                                                   |  |
| 31. | 22U - 600mm W x 800 D x 1333 mm H                                                                                                                 |  |

#### 10.2.22. USB Camera

##### Specification of USB Camera in All in One computer

| S.No | Description – Minimum Specifications   |
|------|----------------------------------------|
| 1    | Image device CMOS 1/2.8"               |
| 2    | Video Formats 1080p30 / 720p30         |
| 3    | Video Signal Compressed (H.264) on USB |
| 4    | HFoV 85°                               |
| 5    | VFoV 55°                               |

#### 10.2.23. OEM Eligibility Criteria for Passive Cabling System

| S. No. | Eligibility Criteria                                                                                                                                  | Compliance (Yes/No) |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 1      | OEM Should be registered in INDIA.                                                                                                                    |                     |
| 2      | All LAN cable and component (Copper & Fiber) should be from single OEM.                                                                               |                     |
| 3      | OEM must be EIA/TIA compliant. Documentary proof to be submitted.                                                                                     |                     |
| 4      | The OEM products when installed should carry and provide 30 years of end-to-end channel performance warranty.                                         |                     |
| 5      | The product quoted for cabling should be RoHS complied (ROHS logo to be in the data sheet).                                                           |                     |
| 6      | The Cabling product quoted should be in accordance latest global standard to EIA/TIA, IEE, ISO/IEC and should be mentioned the data sheet.            |                     |
| 7      | OEM should have valid ISO 9001, ISO 14001 and ISO 45001 certificate on Design, development, and manufacture of solutions for communication networks.  |                     |
| 8      | All Product should when delivered to be submitted with FTC (Factory Test Certificates).                                                               |                     |
| 9      | Given Specifications are Minimum Criteria and OEM/Contractor may suggest products which are at least meeting or exceeding the product specifications. |                     |
| 10     | Note: Failing to comply with any of these terms and condition will lead to rejection of the offer                                                     |                     |

#### 10.2.24. Cat6 U/UTP Double Jacket Cable

| S. No. | Technical Parameters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Compliance (Yes/No) |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 1      | SITC of Cat 6, 23 AWG Solid Bare Copper Conductor U/UTP Unshielded, HDPE Insulation with Diameter $0.95 \pm 0.05\text{mm}$ , PE Cross (+) Filler Between Pairs, Inner FR-PVC Jacket IEC 60332-1 Rated, Outer FR PVC-UV Resistant Jacket with Anti-rodent & Anti Termite property. 500N Pulling Force, Operating Temperature: -20 to +60Deg, Diameter: $7 \pm 0.3\text{ mm}$ , in accordance to ANSI/TIA 568 C.2 / ISO/IEC 11801, 250 Mhz Bandwidth, Propagation Velocity : 69% (nominal), Anti Rodent, Anti Termite Outdoor Double jacket Cable, Cable Roll of 305 Mtr, RoHS Complied. |                     |
| 2      | Suitable for 1GBASE-T with Min. 250Mhz of Bandwidth                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |
| 3      | 4 Twisted Pair alongside PE / PVC Cross Separator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                     |

|    |                                                               |  |
|----|---------------------------------------------------------------|--|
| 4  | Conductor: 23AWG Solid Annealed Bare Copper                   |  |
| 5  | Insulation: High Density Polyethylene, Diameter 0.95 ± 0.05mm |  |
| 6  | FRPVC Inner Jacket                                            |  |
| 7  | UV Resistant FRPVC Outer Jacket Black colour                  |  |
| 8  | Cable Outer Diameter: 7 ± 0.3 mm                              |  |
| 9  | Operating Temperature: -20°C to +60°C                         |  |
| 10 | Bend Radius: 20 X Cable Diameter (Min.) or Better             |  |
| 11 | Conductor Resistance : £ 9.38 Ω /100m                         |  |
| 12 | Resistance Unbalance : 5% Max                                 |  |
| 13 | Mutual Capacitance : £ 5.6nF/100m                             |  |
| 14 | Putup : 305M                                                  |  |
| 15 | RoHS Complied                                                 |  |

#### 10.2.25. Cat6 24 Modular Straight Patch Panel

| S. No. | Technical Parameters                                                                                                                                                                                                                                            | Compliance (Yes/No) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 1      | 24-Port 1U Unloaded Universal Modular Straight Patch Panel preloaded with cable support Bar (with slots to tie individual cable properly at the Support Bar (Shuttered IO not recommended, because when shutter gets malfunctioned then entire IO is of no use) |                     |
| 2      | The Patch panel should be universal (stainless steel rear metal frame) and should be able to support both for UTP & STP Solutions                                                                                                                               |                     |
| 3      | Patch panel should be equipped with cable strain relief retention tray (Cable Support Bar) with slots to tie individual cable properly at the Support Bar                                                                                                       |                     |
| 4      | Each port of the panel should have individual transparent labelling point                                                                                                                                                                                       |                     |
| 5      | Panel should be inbuilt transparent spring shutter for dust protection on each port. (Shuttered IO not recommended, because when shutter gets malfunctioned then entire IO is of no use)                                                                        |                     |
| 6      | Should be RoHS & UL 94V-0 complied                                                                                                                                                                                                                              |                     |
| 7      | Panel shall be UL 1863 Rated (Certificate to be provided along with Bid)                                                                                                                                                                                        |                     |
| 8      | Panel should be loaded with Cat 6 UTP information outlet Jacks with appropriate quantity.                                                                                                                                                                       |                     |

#### 10.2.26. Cat6 Unshielded Modular Jack

| S. No. | Technical Parameters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Compliance (Yes/No) |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 1      | SITC of Category 6 RJ45 Unshielded Modular Jack, ISO/IEC 11801:2nd edition, EN 50173-1, ANSI/TIA/EIA 568-C.2 Category 6, IEC 60603-7 (603-7), Interoperable and backwards compatible with Cat.5e, Universal 110 Impact Tool & Tooless (Both) Termination, Min. 250Mhz Bandwidth, Min. 1Gbps Speed, IDC >= 200 Re-Terminations, >= 750 Plug Mating Cycles, 1.5A Current, 30lbs Plug Retention, UL Certified UL 1863, Strain Relief boot for Pairs, Bend Limiting Boot for Cable, Without any OEM Proprietary Tool Termination |                     |
| 2      | Suitable for 1000BASE-T applications in acc. with IEEE 802.3an up to 250 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                     |

|    |                                                                                                                                                                                                                    |  |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|    | .                                                                                                                                                                                                                  |  |
| 3  | Compatible with RJ standard plugs (RJ11, RJ12, RJ45), PCB Based Universal 110 Impact Tool & Toolless (both) based connection of installation cables                                                                |  |
| 4  | Each Jack should be supplied with one Strain relief boot for Pairs and separate additional bend limiting boot for Cable with side split clip with the I/O and a cable tie for proper holding of cable to the JACK. |  |
| 5  | The Bend limiting boot should have additional clip or locking facility to project the Cable and it should be inbuilt with the JACK.                                                                                |  |
| 6  | The Jack should be universal toolless and tool based connection of installation cables AWG 24 – 23 with Solid Conductor cables.                                                                                    |  |
| 7  | IDC termination should feature Color Coding according to EIA/TIA 568-A/B, Gold-Plated Contacts, >= 750 mating cycles, >= 200 insertion cycle at IDC                                                                |  |
| 8  | Material: RoHS complied                                                                                                                                                                                            |  |
| 9  | Housing material: Polycarbonate/Flame Retardant PVC (UL-94-V0)                                                                                                                                                     |  |
| 10 | Should be UL Certified as per UL 1863                                                                                                                                                                              |  |
| 11 | DC/AC Voltage Endurance - DC1000V/AC750V (1min)                                                                                                                                                                    |  |
| 12 | DC Resistance : Max. 0.3 Ohms                                                                                                                                                                                      |  |
| 13 | Plug Retention Force : 30 lbs                                                                                                                                                                                      |  |
| 14 | Operating Temperature : -10 to +60 °C                                                                                                                                                                              |  |
| 15 | Current Rating : 1.5 Amp                                                                                                                                                                                           |  |
| 16 | The Modular Jack shall not require and Proprietary Termination Tool for termination of Cable.                                                                                                                      |  |

#### 10.2.27. Face Plates

| S. No. | Technical Parameters                                                                  | Compliance (Yes/No) |
|--------|---------------------------------------------------------------------------------------|---------------------|
| 1      | Style (Square) Keystone-Type Shuttered Faceplates, 1, 2 & 4 port configurations       |                     |
| 2      | UK Style (Square) Keystone-Type Faceplates, 1, 2 & 4 port configurations, White Color |                     |
| 3      | Should be featured with spring shutter for each port                                  |                     |
| 4      | Elegant 2 Piece (2 Plate) design for better aesthetics                                |                     |
| 5      | Cover and Base Plastic Material to meet Min. ABS-UL94-V2                              |                     |
| 6      | Suitable for both Flush and Wall mount gang box                                       |                     |
| 7      | Dimensions : 86 x 86 x 12.8 (mm)                                                      |                     |

### 10.2.28. Cat6 U/UTP Patch Cord

| S. No. | Technical Parameters                                                                                                                                                                                                                                                                                                                                                                                                                       | Compliance (Yes/No) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 1      | SITC of Cat6 Patch Cord U/UTP Unshielded 24AWG Bare Copper, Stranded Flexible Conductor, HDPE Insulation, LSZH Jacket, ANSI/TIA 568C.2 Category 6 Patch Cord, Support 1GBASE-T with Min. 250Mhz Bandwidth, Operating Temperature -20 °C to + 60 °C, Diameter <= 6.0mm Nominal, No Shield or Barrier Tape Inside, Min. 750 Plug Mating Cycles, PC UL94-V-0, Factory assembled with Transparent Remoulded Boots, Length 3 Meter, Blue Colour |                     |
| 2      | Cable Construction of Patch Cord : U/UTP LSZH                                                                                                                                                                                                                                                                                                                                                                                              |                     |
| 3      | Number of conductors : 8 (4 Twisted Pairs)                                                                                                                                                                                                                                                                                                                                                                                                 |                     |
| 4      | Conductor Material : Bare Copper (24AWG Stranded)                                                                                                                                                                                                                                                                                                                                                                                          |                     |
| 5      | Cable Overall Nominal diameter : <= 6.0 mm                                                                                                                                                                                                                                                                                                                                                                                                 |                     |
| 6      | Insulation: HDPE                                                                                                                                                                                                                                                                                                                                                                                                                           |                     |
| 7      | Cat 6 patch cord plug to have round cable holder strain relief transparent boot to avoid bending.                                                                                                                                                                                                                                                                                                                                          |                     |
| 8      | Jacket: LSZH (Low Smoke Zero Halogen) with Flame Rating IEC 60332-1 or Better                                                                                                                                                                                                                                                                                                                                                              |                     |
| 9      | Operating Temperature : -20 to + 60 °C                                                                                                                                                                                                                                                                                                                                                                                                     |                     |
| 10     | Plug should have high repeatability cross talk performance with Min. 750 Cycles.                                                                                                                                                                                                                                                                                                                                                           |                     |
| 11     | Patch cord should be ETL verified.                                                                                                                                                                                                                                                                                                                                                                                                         |                     |

### 10.2.29. 6 Core Armored SM OFC

| S. No. | Technical Parameters                                                                                                                                                                                                                    | Compliance (Yes/No) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 1      | Armoured 6 /12Core Singlemode (OS2) 9/125 Fiber Cable, ITU G.652.D, G.657A1, Outdoor ECCS Armored Fiber Cable with PBT Loose Tube Filled With Thixotropic Jelly, Uni-Tube, Glass Yarn, Water Swellable Tape Under Armor, UV-HDPE Jacket |                     |
| 2      | Application : The fiber cable should have Bend insensitive features to be installed in Outdoor, Duct, Trenches & Underground application.                                                                                               |                     |
| 3      | Features : The fiber cable should have excellent features of Tensile, Crush, Water Prevention with Jelly & Moisture Barrier Tape                                                                                                        |                     |
| 4      | Cable Construction                                                                                                                                                                                                                      |                     |
| 5      | Uni-tube (Central Loose Tube) with color coded fibers as per EIA/TIA 598                                                                                                                                                                |                     |
| 6      | Loose Tube : PBT Loose Tube filled with Thixotropic Jelly                                                                                                                                                                               |                     |
| 7      | Loose Tube Diameter : 2.5mm Nominal                                                                                                                                                                                                     |                     |
| 8      | Armoring : Corrugated ECCS Tape Armouring (0.155 mm Nominal thickness)                                                                                                                                                                  |                     |
| 9      | Outer Sheath : UV Resistance HDPE                                                                                                                                                                                                       |                     |
| 10     | Moisture Barrer : Water Blocking Tape Under Armor                                                                                                                                                                                       |                     |
| 11     | Strength Member over Central Tube : Glass Yarns                                                                                                                                                                                         |                     |
| 12     | Physical / Mechanical Characteristics                                                                                                                                                                                                   |                     |
| 13     | Outer Diameter : 8.5 ± 1.0 mm                                                                                                                                                                                                           |                     |
| 14     | Nominal Jacket Thickness : 1.5 mm                                                                                                                                                                                                       |                     |
| 15     | Tensile Strength : >= 2220 Newton (IEC 60794-1-2-E1)                                                                                                                                                                                    |                     |
| 16     | Bending Radius : <= 20*OD (IEC 60794-1-2-E11) (OD=Cable Outer                                                                                                                                                                           |                     |

|    |                                                                               |  |
|----|-------------------------------------------------------------------------------|--|
|    | Diameter)                                                                     |  |
| 17 | Crush Resistance : $\geq 2200$ Newton/100mm (IEC 60794-1-2-E3)                |  |
| 18 | Water Penetration : Meets IEC 60974-1-2 (24 Hr, 3Meter Sample, 1Meter Height) |  |
| 19 | Weight : $\leq 85 \pm 10$ Kg/Km                                               |  |
| 20 | Environmental Characteristics                                                 |  |
| 21 | Operating Temperature : IEC 60794-1-2-F1 @ -30°C to +70°C                     |  |
| 22 | Storage Temperature : IEC 60794-1-2-F1 @ -10°C to +60°C                       |  |
| 23 | Installation Temperature : IEC 60794-1-2-F1 @ -30°C to +70°C                  |  |
| 24 | Safety : ROHS to be mentioned in data sheet                                   |  |
| 25 | Optical Characteristics                                                       |  |
| 26 | Fiber Type : SM (9/125) OS2 as per G.657 A1                                   |  |
| 27 | Max. Attenuation : 0.36/km dB @ 1310nm , 0.23 dB/km @ 1550nm                  |  |
| 28 | Mode Field Diameter @ 1310nm : $8.8 \pm 0.4 \mu\text{m}$                      |  |
| 29 | Dispersion : $\leq 3.5$ ps/nm.km & $\leq 17.5$ ps/nm.km                       |  |
| 30 | Fiber cut of Wavelength : $\leq 1320$                                         |  |
| 31 | Cable Cut of Wavelength : $\leq 1260$                                         |  |
| 32 | Zero Dispersion Wavelength : 1300-1324 nm                                     |  |
| 33 | Zero Dispersion Slope : $\leq 0.090$ ps/nm <sup>2</sup> .km                   |  |
| 34 | Coating Diameter : $250 \pm 15 \mu\text{m}$                                   |  |
| 35 | Cladding Diameter : $125 \pm 0.7 \mu\text{m}$                                 |  |
| 36 | Fiber Curl : $\geq 4$ m radius curve                                          |  |
| 37 | Cladding Non-Circularity : $\leq 1\%$                                         |  |
| 38 | Mode Field Concentricity error : $\leq 0.8 \mu\text{m}$                       |  |
| 39 | Coating/Cladding Concentricity Error : $\leq 12 \mu\text{m}$                  |  |
| 40 | Packaging : Wooden Spool of Min. 2KM roll                                     |  |

#### 10.2.30. 12/24 Port rack mounted LIU

| S. No. | Technical Parameters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Compliance (Yes/No) |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 1      | SITC of 12/24 Port 1U x 19" LIU Loaded with Single mode OS2 LC UPC Adapters & LSZH Pigtailed along with Splice Trays, Min. 4 No of Circular Cable Entry with Rubber Grommet/Glands to close any open entry, Cable Holders for Cable Entry Inside Panel, Heat Shrink Tubes for Splices, Tube for open fibers, Ties, Panel shall be Powder Coated with Min. 1.2mm Metal Sheath, 30 Years Channel Warranty. Factory Loaded LC UPC Type LSZH Pigtailed should meet IEC 61034-1 ,IEC-60332-1, IEC-60754-1, Insertion loss $\leq 0.35$ dB, Return Loss $\geq 50$ , Attenuation: 1310/1550 : 0.3/0.2 dB/KM, Repeatability: $\leq 0.2$ DB 1000 Times Mating Cycles, RoHS Complied, Meets ANSI/TIA 568.3-D |                     |
| 2      | The Fiber Panel shall have Telescopic Sliding Shelf for easy smooth maintenance add/move/changes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                     |
| 3      | The optical fiber Pigtailed shall be factory loaded inside each individual Port of the panel. Pigtailed shall be LSZH with Single mode 9/125 $\mu\text{m}$ fiber                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                     |
| 4      | Panel shall have Min. 4 No. of Cable Entry Slots at back of the Panel supplied with Cable Holders inside Panel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                     |
| 5      | Completely Enclosed without any open area to avoid any Rodent Entry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                     |

|    |                                                                                         |  |
|----|-----------------------------------------------------------------------------------------|--|
| 6  | Pigtail Parameters Loaded inside Panel shall meet below mentioned requirements: -       |  |
| 7  | Pigtail Buffer Jacket Material: LSZH complying to IEC 61034-1 ,IEC-60332-1, IEC-60754-1 |  |
| 8  | Connector Insertion loss should be better than 0.35 dB                                  |  |
| 9  | Return Loss $\geq 50$ for UPC and $\geq 65$ for APC                                     |  |
| 10 | Attenuation: 1310/1550 : 0.3 /0.2 dB/KM                                                 |  |
| 11 | RoHS Complied, Meets ANSI/TIA 568.3-D                                                   |  |
| 12 | Repeatability: $\leq 0.2$ DB 1000 Times Mating Cycles                                   |  |

#### 10.2.31. Fiber Patch Cord

| S. No. | Technical Parameters                                                                                                                                                                                                                                     | Compliance (Yes/No) |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 1      | SITC of Fiber Patch Cord, LC Duplex - LC Duplex, 9/125 $\mu$ m OS2 Singlemode Duplex Zip Cord ( $\leq 2.0$ mm), IL $\leq 0.35$ dB, RL $\geq 50$ dB, LSZH Jacket IEC 60332-1, Operating Temperature -40°C to +85°C, Meets ANSI/TIA 568.3-D, Length 3Meter |                     |
| 2      | Cable : LC/LC or LC/SC or SC/SC, 9/125 $\mu$ m OS2 Singlemode Duplex Zip Cord ( $\leq 2.0$ mm). OEM Name shall be mentioned on the patch cord cable.                                                                                                     |                     |
| 3      | Connectors : The optical fiber patch leads shall comprise of Single mode 9/125 $\mu$ m fiber                                                                                                                                                             |                     |
| 4      | Connector Insertion loss $\leq 0.35$ dB                                                                                                                                                                                                                  |                     |
| 5      | Return Loss $\geq 55$ for UPC and $\geq 65$ for APC                                                                                                                                                                                                      |                     |
| 6      | Jacket Material: LSZH complying to IEC 61034-1, IEC-60332-1, IEC-60754-1                                                                                                                                                                                 |                     |
| 7      | Length : 3 Meter                                                                                                                                                                                                                                         |                     |
| 8      | Attenuation: 1310/1550 : 0.35/0.20 dB/KM                                                                                                                                                                                                                 |                     |
| 9      | Operating Temperature: -40°C to +85°C                                                                                                                                                                                                                    |                     |
| 10     | Repeatability: $\leq 0.2$ DB 1000 Times Mating Cycles                                                                                                                                                                                                    |                     |
| 11     | OEM Name shall be printed on the Patch Cord Cable.                                                                                                                                                                                                       |                     |
| 12     | RoHS Complied, Meets ANSI/TIA 568.3-D                                                                                                                                                                                                                    |                     |

#### 10.2.32. 32" Screen Monitor

| 32" Screen Monitor |               |                                                               |
|--------------------|---------------|---------------------------------------------------------------|
| Sl. No.            | Feature       | Min Technical Specifications and Standards                    |
| 1.                 | Size          | 32" LED Monitor                                               |
| 2.                 | Resolution    | 1920 X 1080 resolution Anti-glare, IPS, 16.7 Million colors   |
| 3.                 | Aspect Ratio  | 16:9 Aspect Ratio,                                            |
| 4.                 | Brightness    | 250 cd/m <sup>2</sup> Brightness,                             |
| 5.                 | Mount         | Tilt and Height-adjustable stand                              |
| 6.                 | Ports         | 1 x DisplayPort, 1 x HDMI, 1 x VGA, 5 x USB, 72% color gamut, |
| 7.                 | Response Time | 4ms                                                           |

### 10.2.33. Minimum Required Display Specification-43 Inch

| Minimum Required Display Specification-43 Inch |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                          |
|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| <b>DISPLAY</b>                                 | Inch                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 43                       |
|                                                | Resolution                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3840x2160(UHD)           |
|                                                | Backlight Unit Type                                                                                                                                                                                                                                                                                                                                                                                                                                          | Direct                   |
|                                                | Brightness                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 300 Nits                 |
|                                                | Static (Panel) Contrast Ratio                                                                                                                                                                                                                                                                                                                                                                                                                                | 12,00:1                  |
| <b>VIDEO</b>                                   | HDR(10 Pro/HLG)                                                                                                                                                                                                                                                                                                                                                                                                                                              | Yes/Yes                  |
|                                                | HDR_HLG (Hybrid Log Gamma)                                                                                                                                                                                                                                                                                                                                                                                                                                   | Yes                      |
| <b>AUDIO</b>                                   | Speaker (Sound Outpoot)                                                                                                                                                                                                                                                                                                                                                                                                                                      | 20W (10W+10W)            |
|                                                | Sound Sync                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Yes (Bluetooth Required) |
| <b>BROADCASTING SYSTEM</b>                     | Digital (Terrestrial,Cable,Satellite)                                                                                                                                                                                                                                                                                                                                                                                                                        | DVB-T2/C                 |
|                                                | Analog (NTSC / SECAM / PAL)                                                                                                                                                                                                                                                                                                                                                                                                                                  | PAL                      |
|                                                | Teletext (Auto Teletext)                                                                                                                                                                                                                                                                                                                                                                                                                                     | Yes                      |
| <b>SMART FUNCTION</b>                          | OS version                                                                                                                                                                                                                                                                                                                                                                                                                                                   | WebOS/MAC                |
|                                                | Web Browser                                                                                                                                                                                                                                                                                                                                                                                                                                                  | YES                      |
|                                                | Mood Display                                                                                                                                                                                                                                                                                                                                                                                                                                                 | YES                      |
|                                                | Wi-Fi                                                                                                                                                                                                                                                                                                                                                                                                                                                        | YES                      |
|                                                | Bluetooth                                                                                                                                                                                                                                                                                                                                                                                                                                                    | YES                      |
|                                                | Soft AP                                                                                                                                                                                                                                                                                                                                                                                                                                                      | YES                      |
|                                                | Screen Share                                                                                                                                                                                                                                                                                                                                                                                                                                                 | YES                      |
|                                                | DIAL                                                                                                                                                                                                                                                                                                                                                                                                                                                         | YES                      |
|                                                | Bluetooth Audio Playback                                                                                                                                                                                                                                                                                                                                                                                                                                     | YES                      |
| <b>OTHER FEATURES</b>                          | HDMI-ARC                                                                                                                                                                                                                                                                                                                                                                                                                                                     | YES (HDMI2)              |
|                                                | Vertical Setup, Fail Over, Play Via URL,NTP Server Setting,DPM (Digital Power Management),Time scheduler RTC (Real Time Clock), NTP sync timer, BEACON, Embedded CM (Contents Manager), Embedded GM (Group Manager), USB Cloning,WOL,SNMP Diagnostics, HTNG-CEC (Version), Simplink(HDMI-CEC) (Version),IR Out (RS-232C, HDMI), Multi IR Code, Welcome Screen (Splash Image),Insert Image,One Channel Map,External Speaker Out / Line Out (Ext. Speaker Out) |                          |
| <b>CONNECTIVITIES</b>                          | HDMI In                                                                                                                                                                                                                                                                                                                                                                                                                                                      | YES (3ea)                |
|                                                | USB (Ver.)                                                                                                                                                                                                                                                                                                                                                                                                                                                   | YES (1ea / 2.0)          |
|                                                | RF In                                                                                                                                                                                                                                                                                                                                                                                                                                                        | YES (1ea)                |
|                                                | AV In                                                                                                                                                                                                                                                                                                                                                                                                                                                        | YES                      |
|                                                | Digital Audio Out (Optical)                                                                                                                                                                                                                                                                                                                                                                                                                                  | YES                      |
|                                                | External Speaker Out(3.5mm Phone jack)                                                                                                                                                                                                                                                                                                                                                                                                                       | YES                      |
|                                                | Headphone Out                                                                                                                                                                                                                                                                                                                                                                                                                                                | YES                      |
|                                                | RJ45 (Usage Purpose)                                                                                                                                                                                                                                                                                                                                                                                                                                         | YES (LAN)                |
|                                                | RS-232C (D-Sub 9pin / Phone jack)                                                                                                                                                                                                                                                                                                                                                                                                                            | YES (Phone jack)         |
|                                                | SVC only (Phone jack type)                                                                                                                                                                                                                                                                                                                                                                                                                                   | YES                      |
| <b>ACCESSORIES</b>                             | Remote type                                                                                                                                                                                                                                                                                                                                                                                                                                                  | S-con                    |

|                    |                                                                                                                                                                                                                                                                     |                           |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
|                    | Power Cable                                                                                                                                                                                                                                                         | YES (1.5M, Straight Type) |
| <b>POWER SPEC.</b> | Power Consumption(Max)                                                                                                                                                                                                                                              | 119.6W                    |
|                    | Power Consumption(Typ)                                                                                                                                                                                                                                              | 97.2W                     |
|                    | Power Supply (Voltage, Hz)                                                                                                                                                                                                                                          | AC 100~240V<br>50/60Hz    |
|                    | Standby Power Consumption                                                                                                                                                                                                                                           | Under 0.5W                |
| <b>OEM</b>         | <p>OEM should have Direct service centre set-up in Bhopal (Valid Proof is required).<br/> OEM Should have ISO, BIS, CB/NRTL, CE/FCC certifications. (Certificate required).<br/> 24 x 7 Toll free number for service support by OEM (OEM Undertaking Required).</p> |                           |

#### 10.2.34. Media Converter

| Media Converter |                       |                        |
|-----------------|-----------------------|------------------------|
| Sl. No.         | Parameters            | Minimum Specifications |
| 1               | Fiber Connector       | LC type                |
| 2               | Fiber Mode            | Single Mode            |
| 3               | Copper UTP Port       | 1G, RJ-45              |
| 4               | Support Distance      | 10 KM                  |
| 5               | Wavelength            | 1310nm                 |
| 6               | Operating Temperature | 0°C to +60°C           |
| 7               | Humidity              | 5%~90% Non-condensing  |
| 8               | Certifications        | CE, FCC                |

#### 10.2.35. Power SPD

|                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>POWER SPD</b>                                                                                                                                                                                                                                                                                                                                                                                                              |
| Modular DIN-rail or Socket mounted SPD suitable for 240/415 V AC, 50 Hz, TN-S/TT earthing system, conforming to IEC 61643-11 / IS standards. The device shall have Maximum Continuous Operating Voltage (Uc) 335 V AC, with Nominal Discharge Current (In) 20 kA (8/20 μs) and Maximum Discharge Current (Imax) 40 kA (8/20 μs) per pole, and Voltage Protection Level (Up) ≤1.5 kV. SPD shall be of thermal disconnect type. |

#### 10.2.36. Network SPD

|                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NETWORK SPD</b>                                                                                                                                                                                                                                                                                                                                                                          |
| Series connection type, suitable for 10/100/1000 Mbps LAN, 1 Gbps transmission, Cat6 (8-wire) with RJ45 connectors and PoE/PoE+ support. Device shall have Nominal Surge Current: Core-Core 350 A (8/20 μs), Core-Ground 2 kA (8/20 μs), Pulse Discharge Current 1 kA, and Uc ±5 V DC (data), ±57 V DC (PoE+). Voltage Protection Level shall be ≤20 V (Core-Core) and ≤700 V (Core-Earth). |

#### 10.2.37. Specification for 1.5 Sqmm and 2.5 Sqmm Electrical Cable

| S.No | Feature | Technical Specifications |
|------|---------|--------------------------|
|------|---------|--------------------------|

|   |                |                                                                                                              |
|---|----------------|--------------------------------------------------------------------------------------------------------------|
| 1 | Specifications | 2 Core x 1.5 SQM + 1 Core x 1 SQMM flexible multistrand cable ISI marked for providing Power Supply from UPS |
| 2 | Specifications | 3 Core X 2.5 SQMM flexible multistrand cable ISI marked for providing Power Supply                           |

**10.2.38. Specification for HDPE Pipe**

| S.No | Feature            | Technical Specifications       |
|------|--------------------|--------------------------------|
| 1    | Min Specifications | HDPE Pipe 40 (OD) / 33 (ID) mm |

**10.2.39. Specification for PVC Conduit Pipe 1"**

| S.No | Feature        | Technical Specifications                         |
|------|----------------|--------------------------------------------------|
| 1    | Specifications | 1" PVC Conduit Pipe Medium with bend saddle etc. |

### 10.3. Affidavit for not being blacklisted by any Government Entity

(On Bidder's Letterhead)

To

Managing Director,  
Madhya Pradesh Warehousing and Logistics Corporation  
Office Complex, Block 'A', Gautam Nagar,  
Bhopal- 462023. Madhya Pradesh

**Sub:** Declaration for not being blacklisted by any Government Entity

**Ref:** Appointment of System Integrator for Design, Supply, Installation and Maintenance of CCTV based e-surveillance System at the selected Warehouses of on CAPEX and OPEX Model on Rate Contract Basis (NIT No: \_\_\_\_\_ Dated: \_\_/\_\_/\_\_\_\_)

Dear Sir,

In response to the above mentioned Bid Document I/We, \_\_\_\_\_, as

<Designation>\_\_\_\_\_ of M/s\_\_\_\_\_, hereby declare that our Company / Firm \_\_\_\_\_ is having unblemished past record and is not declared blacklisted or had our contract terminated or ineligible to participate for bidding by any State/Central Govt., Semi-government or PSU due to unsatisfactory performance, breach of general or specific instructions, corrupt / fraudulent or any other unethical business practices during the last three (03) years from the date of bid submission.

Yours Faithfully  
[Authorized Signatory]  
[Designation]

[Place]

[Date and Time]  
[Seal & sign]  
[Business Address]

#### 10.4. Format for Queries

To

Managing Director,  
Madhya Pradesh Warehousing and Logistics Corporation  
Office Complex, Block 'A', Gautam Nagar,  
Bhopal- 462023. Madhya Pradesh

**Sub:** Submission of Queries

**Ref:** Appointment of System Integrator for Design, Supply, Installation and Maintenance of CCTV based e-surveillance System at the selected Warehouses of MPWLC on CAPEX and OPEX Model on Rate Contract Basis (NIT No: \_\_\_\_\_ Dated: \_\_/\_\_/\_\_)

Dear Sir,

We have gone through the bid document and have following queries:-

| S. No. | Clause No in Bid Document | Page Number | Query |
|--------|---------------------------|-------------|-------|
|        |                           |             |       |
|        |                           |             |       |
|        |                           |             |       |
|        |                           |             |       |

Request your kind response of the same.

Yours Faithfully  
(Authorized Signatory)  
Designation

(Place)

(Date and Time)  
(Seal and Sign)  
(Business Address)

## 10.5. Financial Bid Format

### i. Covering Letter for Financial Bid

To,  
Managing Director,  
Madhya Pradesh Warehousing and Logistics Corporation  
Office Complex, Block 'A', Gautam Nagar,  
Bhopal- 462023. Madhya Pradesh

**Sub:** Submission of Financial Bid

**Ref:** Appointment of System Integrator for Design, Supply, Installation and Maintenance of CCTV based e-surveillance System at the selected Warehouses of MPWLC on CAPEX and OPEX Model on Rate Contract Basis (NIT No: \_\_\_\_\_ Dated: \_\_/\_\_/\_\_\_\_)

Dear Sir,

Having examined the Bid Document, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the professional services for scope of work as required and outlined in the Bid Document.

We confirm that the information contained in these responses or any part thereof, including the exhibits and other documents delivered or to be delivered to MPWLC is true, accurate, verifiable and complete. This response includes all information necessary to ensure that the statements therein do not in whole or in part mislead the department in its short-listing process.

We fully understand and agree to comply that on verification, if any of the information provided here is found to be misleading the selection process, we are liable to be dismissed from the selection process or contract terminated during the engagement period, if selected to do so.

We agree for unconditional acceptance of all the terms and conditions set out in the Bid Document and also agree to abide by this tender response for a period of 180 days from the date fixed for bid opening.

We agree that you are not bound to accept any tender response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/ services specified in the tender response.

It is hereby confirmed that I/We are entitled to act on behalf of our company/ corporation/ firm/organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Thanking you,  
Yours faithfully  
(Authorized Signatory)  
Designation  
(Place) / (Date and Time) / (Seal and sign) / (Business Address)

## ii. Financial Bid

(to be submitted online only on e-procurement portal)

**Ref:** Appointment of System Integrator for Design, Supply, Installation and Maintenance of CCTV based e-surveillance System Warehouses of MPWLC on CAPEX and OPEX Model on Rate Contract Basis (NIT No: \_\_\_\_\_ Dated: \_\_/\_\_/\_\_\_\_)

| Sl. No. | Item Description (As per specifications mentioned)                                                                                                                                           | Units | Quantity | Base Unit Cost in INR (incl. all incidental charges and all Taxes but excl. GST) |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------|----------------------------------------------------------------------------------|
| C1      | C2                                                                                                                                                                                           | C3    | C4       | C5                                                                               |
| 1       | All in One Desktop Computer                                                                                                                                                                  | Nos.  | Per Unit |                                                                                  |
| 2       | OUTDOOR BULLET CAMERA 4MP                                                                                                                                                                    | Nos.  | Per Unit |                                                                                  |
| 3       | OUTDOOR BULLET CAMERA 2MP                                                                                                                                                                    | Nos.  | Per Unit |                                                                                  |
| 4       | OUTDOOR DOME CAMERA                                                                                                                                                                          | Nos.  | Per Unit |                                                                                  |
| 5       | OUTDOOR PTZ CAMERA                                                                                                                                                                           | Nos.  | Per Unit |                                                                                  |
| 6       | 8 CH NETWORK VIDEO RECORDER- NVR.                                                                                                                                                            | Nos.  | Per Unit |                                                                                  |
| 7       | 16 CH NETWORK VIDEO RECORDER- NVR.                                                                                                                                                           | Nos.  | Per Unit |                                                                                  |
| 8       | 32 NETWORK VIDEO RECORDER- NVR.                                                                                                                                                              | Nos.  | Per Unit |                                                                                  |
| 9       | 64 NETWORK VIDEO RECORDER- NVR.                                                                                                                                                              | Nos.  | Per Unit |                                                                                  |
| 10      | UPS for All in one Desktop                                                                                                                                                                   | Nos.  | Per Unit |                                                                                  |
| 11      | 2KVA Centralized Field UPS as per the site requirement with 3 hours back up, UPS capacity as per design solution requirement, Power Factor- 0.9 or better, Single Phase In Single Phase Out. | Nos.  | Per Unit |                                                                                  |
| 12      | 8 Port PoE switch                                                                                                                                                                            | Nos.  | Per Unit |                                                                                  |
| 13      | 24 Port 10/100/1000 Switch                                                                                                                                                                   | Nos.  | Per Unit |                                                                                  |
| 14      | 24 Port PoE+ Switch                                                                                                                                                                          | Nos.  | Per Unit |                                                                                  |
| 15      | 24 port 10/100/1000 PoE+ with 6x10G uplink Port Switch                                                                                                                                       | Nos.  | Per Unit |                                                                                  |
| 16      | 10G SFP+                                                                                                                                                                                     | Nos.  | Per Unit |                                                                                  |
| 17      | 1G SFP                                                                                                                                                                                       | Nos.  | Per Unit |                                                                                  |
| 18      | Junction Box                                                                                                                                                                                 | Nos.  | Per Unit |                                                                                  |
| 19      | 9U Wall Mount Rack                                                                                                                                                                           | Nos.  | Per Unit |                                                                                  |
| 20      | 15U Wall Mount Rack                                                                                                                                                                          | Nos.  | Per Unit |                                                                                  |
| 21      | 22U Floor Mount Rack                                                                                                                                                                         | Nos.  | Per Unit |                                                                                  |
| 22      | 8 Port PoE Switch                                                                                                                                                                            | Nos.  | Per Unit |                                                                                  |
| 23      | USB Camera                                                                                                                                                                                   | Nos.  | Per Unit |                                                                                  |
| 24      | Cat6 U/UTP Double Jacket Cable                                                                                                                                                               | Mtr.  | Per Mtr. |                                                                                  |
| 25      | Cat6 24 Modular Straight Patch Panel                                                                                                                                                         | Nos.  | Per Unit |                                                                                  |
| 26      | Cat6 Unshielded Modular Jack                                                                                                                                                                 | Nos.  | Per Unit |                                                                                  |
| 27      | Face Plates                                                                                                                                                                                  | Nos.  | Per Unit |                                                                                  |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                   |                        |  |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------|--|
| 28 | Cat6 U/UTP Patch Cord                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Nos.              | Per Unit               |  |
| 29 | 6 Core Armored SM OFC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Mtr.              | Per Mtr.               |  |
| 30 | 12/24 Port rack mounted LIU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Nos.              | Per Unit               |  |
| 31 | Fiber Patch Cord                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Mtr.              | Per Mtr.               |  |
| 32 | 32" Screen Monitor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Nos.              | Per Unit               |  |
| 33 | 43 Inch Display                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nos.              | Per Unit               |  |
| 34 | Media Converter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nos.              | Per Unit               |  |
| 35 | Power SPD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Nos.              | Per Unit               |  |
| 36 | Network SPD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Nos.              | Per Unit               |  |
| 37 | PVC Conduit Pipe 1"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mtr.              | Per Mtr.               |  |
| 38 | HDPE Pipe                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Mtr.              | Per Mtr.               |  |
| 39 | 1.5 Sqmm and 2.5 Sqmm Electrical Cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Mtr.              | Per Mtr.               |  |
| 40 | 1.5 Meter Long Mounting Arm for CCTV Camera mounting, hot dip galvanized with min. 86 micron coating.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Nos.              | Per Unit               |  |
| 41 | 5/6 Meter high standard octagonal pole with upto 1.5 Meter arm for CCTV camera mounting, hot dip galvanized with min. 86 micron coating.                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Nos.              | Per Unit               |  |
| 42 | 7 Meter high standard octagonal pole for PTZ camera mounting, hot dip galvanized with min. 86 micron coating.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Nos.              | Per Unit               |  |
| 43 | Power Supply for PTZ Camera                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Nos.              | Per Unit               |  |
| 44 | Earthing for Poles & JB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nos.              | Per Unit               |  |
| 45 | Minimum 20 MBPS Network Connectivity through MPLS for Contract Period of 3 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Location          | Per Location Per Month |  |
| 46 | Minimum 30 MBPS Network Connectivity through MPLS for Contract Period of 3 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Location          | Per Location Per Month |  |
| 47 | Minimum 50 MBPS Network Connectivity through MPLS for Contract Period of 3 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Location          | Per Location Per Month |  |
| 48 | Minimum 80 MBPS Network Connectivity through MPLS for Contract Period of 3 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Location          | Per Location Per Month |  |
| 49 | Minimum 100 MBPS Network Connectivity through MPLS for Contract Period of 3 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Location          | Per Location Per Month |  |
| 50 | Operator Control Desk & Other Furniture and Fittings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Location          | Per Location           |  |
| 51 | OPEX Cost (15% of the contract amount, for three years, with Equated Half Yearly Payments.)of the installed items, softwares, manpower cost, upgradation, licenses, associated accessories, tools etc., dashboards, reports, integration, support, capability building, training, data storage management and all other ancillary activities required to carry out the scope of the work smoothly and in full at the locations/godowns/ warehouses/Branch Offices/Regional Offices as per the phase wise requirement for the entire contract maintenance period of 3 years as mentioned in the RFP. | As defined in RFP | Lump Sum Per Location  |  |

**\*C=Column**

**Note: -**

- a. The amount as quoted at last row of column 5 shall be considered for L-1 and other criteria for decision of award of the tender. Hence, extension/contraction of the location/s can be done by the authority (MPWLC) and the payment shall be paid on pro-rata basis Work order wise.
- b. All rates shall be in round figures with no decimal (i.e. round figures in Rs) and should be exclusive of GST.
- c. The above table is sample of financial quote to be filled in the e-procurement portal.
- d. The components, equipment, accessories etc. mentioned in the RFP are tentative and are not limited to. It may vary as per site condition and requirement.
- e. The description are minimum specifications only.
- f. The units are tentative and must be assessed as per site condition & requirements.
- g. Bidder must ensure to consider any other accessories, software, hardware etc, required for smooth functioning of proposed system in its scope.
- h. Higher specifications meeting the minimum specifications are as per bidders' choice and has to bear the any additional cost accordingly. Any deviation from the specified minimum specifications needs prior approval of the MPWLC and should be in notice of competent authority of MPWLC.
- i. AutoCAD & PDF drawings for each of the locations for which WO will be issued shall be provided. However, selected bidder is advised to get the same verified by physically witnessing the site/locations for actual measurement and assessment. AutoCAD drawings may be collected from the office of MPWLC (SE, HO, MPWLC).

## 10.6. Statement of No Deviation from the Bid Document Requirements

(Letter on the bidder's Letterhead)

To

Managing Director,  
Madhya Pradesh Warehousing and Logistics Corporation  
Office Complex, Block 'A', Gautam Nagar,  
Bhopal- 462023. Madhya Pradesh

**Sub:** Undertaking of No deviation from Bid Document terms and conditions

**Ref:** Appointment of System Integrator for Design, Supply, Installation and Maintenance of CCTV based e-surveillance System at the selected Warehouses of MPWLC on CAPEX and OPEX Model on Rate Contract Basis (NIT No: \_\_\_\_\_ Dated: \_\_/\_\_/\_\_\_\_)

Dear Sir,

I would like to state that in the proposal submitted by us, there are no deviations from the Bid Document Eligibility Criteria, Scope of Work, Terms & Conditions and proposed for this engagement.

Thanking you,

Yours Faithfully  
[Authorized Signatory]  
[Designation]

[Place]

[Date and Time]  
[Seal & sign]  
[Business Address]

## 10.7. Format of Performance Bank Guarantee (PBG)

[Date]

To

Managing Director,  
Madhya Pradesh Warehousing and Logistics Corporation  
Office Complex, Block 'A', Gautam Nagar,  
Bhopal- 462023. Madhya Pradesh

**Sub:** Submission of Performance Bank Guarantee (PBG)

**Ref:** Appointment of System Integrator for Design, Supply, Installation and Maintenance of CCTV based e-surveillance System at the selected Warehouses of MPWLC on CAPEX and OPEX Model on Rate Contract Basis (NIT No: \_\_\_\_\_ Dated: \_\_/\_\_/\_\_)

Dear Sir,

WHEREAS

M/s. (name of successful bidder), a company registered under [Successful Bidder's Legal Entity], having its registered office at (address of the successful bidder), (hereinafter referred to as "our constituent", which expression, unless excluded or repugnant to the context or meaning thereof, includes its successors and assignees), agreed to enter into a contract dated ..... (Herein after, referred to as "Contract") with you (Madhya Pradesh Warehousing and Logistics Corporation (MPWLC)) for Appointment of System Integrator for Design, Supply, Installation and Maintenance of CCTV based e-surveillance System at the selected Warehouses of MPWLC on CAPEX and OPEX Model on Rate Contract Basis (NIT No: \_\_\_\_\_ Dated: \_\_/\_\_/\_\_)

We are aware of the fact that as per the terms of the contract, M/s. (name of successful bidder) is required to furnish an unconditional and irrevocable bank guarantee of amount of Rs ..... Crore in favour of MPWLC and guarantee the due performance by our constituent as per the contract and do hereby agree and undertake to pay the amount due and payable under this bank guarantee, as security against breach/ default of the said contract by our constituent.

In consideration of the fact that our constituent is our valued customer and the fact that he has entered into the said contract with you, we, (name and address of the bank), have agreed to issue this Performance Bank Guarantee. Therefore, we (name and address of the bank) hereby unconditionally and irrevocably guarantee you as under:

In the event of our constituent committing any breach/default of the said contract, and which has not been rectified by him, we hereby agree to pay you forthwith on demand such sum/s not exceeding the sum of amount Rs ..... Crore without any demur.

Notwithstanding anything to the contrary, as contained in the said contract, we agree that your decision as to whether our constituent has made any such default(s) / breach(es), as aforesaid and the amount or amounts to which you are entitled by reasons thereof, subject to the terms

and conditions of the said contract, will be binding on us and we shall not be entitled to ask you to establish your claim or claims under this Performance Bank Guarantee, but will pay the same forthwith on your demand without any protest or demur.

We further agree that the termination of the said agreement, for reasons solely attributable to our constituent, virtually empowers you to demand for the payment of the above said amount under this guarantee and we would honor the same without demur.

We hereby expressly waive all our rights to pursue legal remedies against MPWLC and other Concerned Government Departments of Madhya Pradesh.

We the guarantor, as primary obligor and not merely surety or guarantor of collection, do hereby irrevocably and unconditionally give our guarantee and undertake to pay any amount you may claim (by one or more claims) up to but not exceeding the amount mentioned aforesaid during the period from and including the date of issue of this guarantee through the period.

We specifically confirm that no proof of any amount due to you under the contract is required to be provided to us in connection with any demand by you for payment under this guarantee other than your written demand.

Any notice by way of demand or otherwise hereunder may be sent by special courier, telex, fax, registered post or other electronic media to our address, as aforesaid and if sent by post, it shall be deemed to have been provided to us after the expiry of 48 hours from the time it is posted.

If it is necessary to extend this guarantee on account of any reason whatsoever, we undertake to extend the period of this guarantee on the request of our constituent upon intimation to you.

This Performance Bank Guarantee shall not be affected by any change in the constitution of our constituent, nor shall it be affected by any change in our constitution or by any amalgamation or absorption thereof or therewith or reconstruction or winding up but will ensure to your benefit and be available to and be enforceable by you during the period from and including the date of issue of this guarantee through the period.

Notwithstanding anything contained hereinabove, our liability under this Performance Guarantee is restricted to amount Rs ..... Crore and shall continue to exist, subject to the terms and conditions contained herein, unless a written claim is lodged on us on or before the aforesaid date of expiry of this guarantee.

We hereby confirm that we have the power/s to issue this Guarantee in your favor under the Memorandum and Articles of Association/ Constitution of our bank and the undersigned is/are the recipient of authority by express delegation of power/s and has/have full power/s to execute this guarantee under the Power of Attorney issued by the bank in your favor.

We further agree that the exercise of any of your rights against our constituent to enforce or forbear to enforce or any other indulgence or facility, extended to our constituent to carry out the contractual obligations as per the said Contract, would not release our liability under this guarantee and that your right against us shall remain in full force and effect, notwithstanding any arrangement that may be entered into between you and our constituent, during the entire currency of this guarantee.

Notwithstanding anything contained herein, our liability under this Performance Bank Guarantee shall not exceed amount Rs .....Crore

The PBG shall be remain valid during the entire contract period of 62 months from date of contract agreement and any extensions thereof plus additional 6 Months; and We are liable to pay the guaranteed amount or part thereof under this Performance Bank Guarantee only if we receive a written claim or demand on or before .... (Date).

Any payment made hereunder shall be free and clear of and without deduction for or on account of taxes, levies, imports, charges, duties, fees, deductions or withholding of any nature imposts.

This Performance Bank Guarantee must be returned to the bank upon its expiry. If the bank does not receive the Performance Bank Guarantee within the above-mentioned period, subject to the terms and conditions contained herein, it shall be deemed to be automatically cancelled.

This guarantee shall be governed by and construed in accordance with the Indian Laws and we hereby submit to the exclusive jurisdiction of Courts of Justice in Bhopal (M.P) for the purpose of any suit or action or other proceedings arising out of this guarantee or the subject matter hereof brought by you may not be enforced in or by such count.

Dated ..... this ..... Day ..... Year

Yours faithfully,

For and on behalf of the .....Bank,

(Signature)

Designation

(Address of the Bank)

**Note:**

This guarantee will attract stamp duty as a security bond. A duly certified copy of the requisite authority conferred on the official/s to execute the guarantee on behalf of the bank should be annexed to this guarantee for verification and retention thereof as documentary evidence.

### 10.8. Indicative Document Checklist for submission

Interested parties to submit the following documents, in following sequence and in one consolidated pdf/word file, with all supporting documents/information as per checklist, with reference page numbers duly marked)

| S.No | Description                                                                                                                                                                                                                              | Checklist Document/Supporting Attached (Yes/No) | Relevant Reference Page No/s against each details requested |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------|
| 1    | Certificate of Incorporation / MoA – AoA of the Company                                                                                                                                                                                  |                                                 |                                                             |
| 2    | Duly Seal-Signed Board Resolution, Consent from the partner/s as applicable, and Authority Letter from the Company/Firm/JV/Consortium for submission of bids on the entity's Letter Heads.                                               |                                                 |                                                             |
| 3    | Partnership Deed, as applicable                                                                                                                                                                                                          |                                                 |                                                             |
| 4    | Copy of GST Registration certificate                                                                                                                                                                                                     |                                                 |                                                             |
| 5    | Copy of PAN Card                                                                                                                                                                                                                         |                                                 |                                                             |
| 6    | Income Tax returns for preceding three financial years                                                                                                                                                                                   |                                                 |                                                             |
| 7    | Other tax certificates (as applicable)                                                                                                                                                                                                   |                                                 |                                                             |
| 8    | Affidavit for not being blacklisted by any Government Entity on a Rs. 500 (Rs Five Hundred) stamp paper as per annexure 10.3.                                                                                                            |                                                 |                                                             |
| 9    | Certificate from their statutory auditor certifying average annual turnover of mentioned 3 financial years                                                                                                                               |                                                 |                                                             |
| 10   | Audited B/S and financial statements.                                                                                                                                                                                                    |                                                 |                                                             |
| 11   | Statutory auditor certificate certifying the net-worth as on 31-Mar-2025.                                                                                                                                                                |                                                 |                                                             |
| 12   | Document in Support of Project Experience-Completion Certificates along with Contracts/Agreements/Invoices from clients or relevant documents having number/name mentioned.                                                              |                                                 |                                                             |
| 13   | MP GST Registration for the last three years from the bid submission date                                                                                                                                                                |                                                 |                                                             |
| 14   | Undertaking to establish the office in M.P.                                                                                                                                                                                              |                                                 |                                                             |
| 15   | GFR Rules Applicable - A self-declaration on company's/firm's letterhead to be provided for the same.                                                                                                                                    |                                                 |                                                             |
| 16   | OEM/OEMs Compliance of the offered product (i.e CCTV Cameras, NVRs and Switches) on OEM/OEMs Letterhead/s along with data sheets.                                                                                                        |                                                 |                                                             |
| 17   | Documentary Proof from OEM for MAF to be submitted by bidder.                                                                                                                                                                            |                                                 |                                                             |
| 18   | Address proof of OEM / CCTV Camera Product & its surveillance accessories Company (major components) of registered office and service centre in India & toll free no. in India since at least last 5 years from the bid submission date. |                                                 |                                                             |
| 19   | Toll free no of OEM / CCTV Camera Product & its surveillance accessories Company (major components)                                                                                                                                      |                                                 |                                                             |
| 20   | Copy of PO/WO from the ISP of deploying dual upstream of Internet connectivity                                                                                                                                                           |                                                 |                                                             |
| 21   | Self-declaration with valid and working toll free number                                                                                                                                                                                 |                                                 |                                                             |

|    |                                                                                                                                                                                                                                                                                            |  |  |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
|    | details Bidder having tollfree number for call log                                                                                                                                                                                                                                         |  |  |
| 22 | Valid Certificate of BIS, ISO, IS etc.on or at the date of submission bid document.                                                                                                                                                                                                        |  |  |
|    | <b>OEM Eligibility</b>                                                                                                                                                                                                                                                                     |  |  |
| 22 | OEM's product brochure / datasheet for all equipment                                                                                                                                                                                                                                       |  |  |
| 23 | Undertaking by OEM for not being banned or never suspended by ONVIF within the last 10 years from the date of publishing the bid.                                                                                                                                                          |  |  |
| 24 | Self-declaration by the OEM, duly signed by the authorized signatory for the Camera to be provided by the bidder should not be complying to GB28181, GB/T28181-2011 standards and there should be no option to activate or deactivate GB/T28181 standards in the camera web page/Settings. |  |  |
| 25 | Self declaration by OEM with supportive test report for camera models and NVR functionalities, if any should have prior integration with the quoted NVR version latest on date of bid submission. or must be from same OEM, in case of different NVR OEM and Camera                        |  |  |
| 26 | OEM needs to submit declaration on letterhead regarding quoted cameras series specific sensor and SoC details (Make, Model etc.).                                                                                                                                                          |  |  |
| 27 | OEM Self declaration that the camera are manufacturer's official product line designed for commercial / industrial 24x7x365 use. The camera firmware are designed and developed by the same OEM.                                                                                           |  |  |
| 28 | The OEM self declaration having a dedicated workforce in India on its payroll and possesses the necessary infrastructure to provide reliable, long-term after-sales service and spare parts support directly through its own resources.                                                    |  |  |
|    | <b>OEM Eligibility Criteria for Passive Cabling System</b>                                                                                                                                                                                                                                 |  |  |
| 29 | Certificate of Incorporation that OEM registered in INDIA.                                                                                                                                                                                                                                 |  |  |
| 30 | Self declaration for having all LAN cable and component (Copper & Fiber) are from single OEM.                                                                                                                                                                                              |  |  |
| 31 | Documentary proof of OEM being EIA/TIA compliant                                                                                                                                                                                                                                           |  |  |
| 32 | Self declaration by OEM that products when installed carry and provide 30 years of end-to-end channel performance warranty.                                                                                                                                                                |  |  |
| 33 | Valid ISO 9001, ISO 14001 and ISO 45001 certificate on Design, development, and manufacture of solutions for communication networks of OEM.                                                                                                                                                |  |  |
| 34 | Given Specifications are Minimum Criteria and OEM/Contractor may suggest products which are at least meeting or exceeding the product specifications.                                                                                                                                      |  |  |
| 35 | Any other/s relevant information/document/s requested in the tender document.                                                                                                                                                                                                              |  |  |

\*\*\*\*\*End of the Document\*\*\*\*\*