# RAILTEL CORPORATION OF INDIA LIMITED

(A Govt. of India Undertaking)

**Registered & Corporate Office:** 

Plate-A, 6th Floor, Office Tower-2, NBCC Building, East Kidwai Nagar, New Delhi-110023

**Selection of Partner For** 

"IT services to RCIL Customer"

EOI No: RCIL/EOI/CO/ITB/2025-26/IT services to RCIL customer/4 dated 19.05.25



#### **EOI NOTICE**

RailTel Corporation of India Limited Plate-A, 6th Floor, Office Tower-2, NBCC Building, East Kidwai Nagar, New Delhi-110023

EOI No: RCIL/EOI/CO/ITB/2025-26/IT services to RCIL customer/4 dated 19.05.25

RailTel Corporation of India Ltd., (here after referred to as RailTel) invites EOIs from RailTel's Empaneled Partners for the selection of suitable agency for "IT Services to RCIL Customer".

The details are as under:

Last date for submission of EOIs by bidders	23-05-2025 before 15:00Hrs.
Opening of bidder EOIs	23-05-2025 at 15:30Hrs.
Earnest Money Deposit (EMD)	Rs 5,00,000/- (Five Lakhs) through DD or online transfer to RailTel in following account: Bank Name- Union Bank of India Branch- YUSUF SARAI, DELHI A/C Number - 340601010050446 Account Type- Current Account IFSC Code -UBIN0534064
Number of copies to be submitted for scope of work	01 in Hard Copy
Place of Bid submission	RailTel Corporation of India Limited Plate-A, 6th Floor, Office Tower-2, NBCC Building, East Kidwai Nagar, New Delhi-110023

Prospective bidders are required to direct all communications related to this Invitation for EoI document, through the following Nominated Point of Contact persons:

Contact: Naresh Kumar

Position: JGM/IT

Email: naresh.kumar@railtelindia.com Telephone: +91124 2714000 Ext 2222

#### NOTE:

- I. All firms are required to submit hard copy of their EOI submissions, duly signed by Authorized Signatories with Company seal and stamp.
- II. The EOI response is invited from empaneled partners of RailTel. Only RailTel empaneled partners are eligible for participation in EOI process.

#### 1. RailTel Corporation of India Limited-Introduction

RailTel Corporation of India Limited (RCIL), an ISO-9001:2000 organization is a Government of India undertaking under the Ministry of Railways. 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.

For ensuring efficient administration across India, country has been divided into four regions namely, Eastern, Northern, Southern & Western each headed by Regional General Managers 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 & Services**

Presently, RailTel holds IP-1, NLD and ISP (Class-A) licenses under which the following services are being offered to various customers:

#### **CARRIER SERVICES**

- 1. 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
  - 2. Lease Line Services: Available for granularities from E1, DS-3, STM-1 & above
  - 3. Dark Fiber/Lambda: Leasing to MSOs/Telco's along secured Right of Way of Railway tracks
- **4.** Co-location Services: Leasing of Space and 1000+ Towers for collocation of MSC/BSC/BTS of Telco's

#### **ENTERPRISE SERVICES**

- 1. Managed Lease Line Services: Available for granularities from E1, DS-3, STM-1 & above
- **2.** MPLS VPN: Layer-2 & Layer-3 VPN available for granularities from 64 Kbps to nx64 Kbps, 2 Mbps& above
- **3.** Dedicated Internet Bandwidth: Experience the "Always ON" internet connectivity at your fingertips in granularities 2mbps to 155mbps

#### RETAIL SERVICES

RailWire: RailWire is the retail broadband service of RailTel. RailWire is a collaborative public private local entrepreneur (PPLE) model providing broadband services by leveraging the eco system available with different partners like RailTel, Access Network Provider, Aggregation Network Provider (AGNP) and Managed Service Provider (MSP) to offer high speed & cost-effective broadband to end customers. The model uses RailTel's nationwide Core fiber Backbone Network, Access Network available with Local entrepreneurs, FTTH Infrastructure providers etc. and Managed Service Partners/Application Service Providers having IT & management capabilities. The model has been tested for several years now with about 4 lakh+ home broadband users along with 5200+ local access network partners. It is noteworthy that this approach whereby about 54%

of the revenue is ploughed back into the local community not only serves the underserved but also creates livelihoods and jobs in the local communities.

# 2. Objective of EOI

RCIL is implementing IT-ICT projects like providing Infra as a Service for its customers. RailTel is in process of selecting suitable empaneled partner for providing customer specific IT services.

#### 3. Scope of Work

The scope of work is to provide "AI based solution for FRS, Bag Counting, Fire & Smoke Detection System and Rodent Detection System" for RailTel's Customer as per Schedule of Requirements (SoR) Clause 10. The proposed quantities are indicative which may vary after detail site survey. The detailed scope of work is provided under Annexure-03.

# 4. Language of Proposals

The proposal and all correspondence and documents shall be written in English. The hardcopy version will be considered as the official proposal.

# 5. Proposal Preparation and Submission

The Applicant/bidder is responsible for all costs incurred in connection with participation this EOI process, including, but not limited to, cost incurred in conduct of informative and other diligence activities, participation in meetings/ discussions/presentations, preparation of proposal, in providing any additional information required by RCIL to facilitate the evaluation process or all such activities related to the EOI response process. RCIL will in nocase be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

#### **6.** Bidding 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 and stamped by the bidder including the closing page in token of his having studied the EOI document and should be submitted along with the bid.

#### 7. Payment terms

- 7.1. Payment terms will be on back to back basis and as per agreement between RailTel and Customer.
  - 7.2. RailTel shall release the payment to selected bidder after receiving payment from Customer and on submission of Tax invoice by selected bidder on back to back basis.
  - 7.3. Any penalty or deduction (LD) from customer shall be passed on to selected bidder on proportionate basis.
    - Bill passing authority is JGM/IT/CO and Bill payment authority is GM/Finance /CO.

**8. Delivery Schedule**: Tentative delivery schedule is to deploy proposed solution in customer locations within 2-3 months of issue of PO from RailTel. However, actual delivery schedule shall be applicable as per PO/agreement from RailTel Customer on back to back basis.

#### 9. Compliance requirements

- 9.1. The interested partner should be an Empaneled Partner with RailTel on the date of bid submission. Copy of RailTel's Empanelment Letter may be submitted in this regard.
- 9.2. The interested bidder should submit Earnest Money Deposit (EMD) through online transfer and submit the proof of same along with bid.
- 9.3. The interested bidder should comply to insertion of Rule 144(xi) in the GFR, 2017 vide office OM no. 6/18/2019-PPD dated 23-July-2020 issued by Ministry of Finance, Government of India, including revisions.( Annexure-01)
- 9.4. The interested bidder should not be blacklisted by any State / Central Government Ministry / Department / Corporation / Autonomous Body in India, on the last date of submission of EOI. (Annexure-02)
- 9.5. There should not be any ongoing or past, arbitration case(s) between 'RailTel' and 'Interested Bidder' on the last date of submission of EOI. (Annexure-02)
- 9.6. The interested partner should have a valid Goods and Service Tax Identification Number (GSTIN), as on the last date of submission of EOI.
- 9.7. The Bidder must have cumulative turnover of minimum 150% of the total quoted SOR price or positive net worth during the last 3 financial years. Bidder should submit audited balance sheets and certificate of CA for preceding three years.
- 9.8. The interested bidder should have experience in IT/ICT project implementation. Bidder should submit PO or work order copy of completed or ongoing work of contract value not less than 60% of total quoted SOR price for the work of SITC of IT/ICT Infra during last seven years from any government organization

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Bidder should submit PO or work order copy of completed or ongoing work of SITC of IT/ICT Infra for more than 20 locations PAN India during last seven years from any government organization.

# 10. Schedule of Rates

S.No				Qty	Unit Rate for Supply Item (Rs.) including GST	Unit Rate for installation & commissioning (Rs.) including GST*	GST %	Total Amount (Rs.) D=A*(B+C) (including GST)	Comprehensive Operation and Maintenance Cost for 5 yrs from the date of Go-Live including GST	Sub Total (Rs.) F = D+E
	ITEMS	UoM		(A)	(B)				(E)	
1	Workstation- 16-core AMD EPYC CPU or Equivalent Intel, 128GB RAM, 1 x NVIDIA RTX 4060 Ti-16gb GPU, 1TB SSD, USB 3.0 - 2ports or more, USB 2.0 - 2ports or more, HDMI - 2ports or	Nos	Per WM Room	226	Ľ	T		L		

	more, Windows/ Linux OS,				1				
2	Facial Recognition Licence/ FRS per channel/ Per Camera	Nos	Per Cam / CCTV	10191					
3	Sack Counting Analytics- Per Channel / Per Camera	Nos	Per Cam / CCTV	10191					
4	Unified Dashboard for Monitoring Room and RM	Nos	1	1					
5	Rodent Detection- Per Channel / Per Camera	Nos	Per Cam / CCTV	6794			Ш		
6	Fire and Smoke Detection - Per Channel / Per Camera	Nos	Per Cam / CCTV	6794					
7	CO2 Sensor	Nos	1	3200					
8				TOTAL	SOR COST	including tax			

Total SOR Cost (including tax) in words	:

#### 11. Evaluation criteria

Only those offers shall be considered for financial evaluation which fulfills all compliance requirements in clause number 9. Financial Evaluation will be carried on basis of lowest offer quoted by the bidder under Clause-10 (SOR).

#### 12. Liquidated Damages

The timely delivery is the essence of this tender. Liquidated damages will be applicable as per back to back terms from customer. RailTel will have the right to cancel the order, place order on alternative source besides levying the liquidated damages as above.

# 13. Bidding Process

The bidder needs to submit the bid in sealed, signed and stamped envelope clearly mentioning of EOI number, EOI name, addressed to the EOI inviting officer as well as Bidding Agency Name and Contact person.

#### BID should consist the following:

- 1. Covering Letter
- 2. RailTel empanelment LOI
- 3. Signed and Stamped EOI Document
- 4. GST and PAN documents
- 5. EMD
- 6. Duly filled SOR (Clause 10)
- 7. Solution document
- 8. Documents with respect to compliance requirement clause (9.1 to 9.8).
- 9. Deviation statement (if any) as per clause number 24.
- 10. Integrity Pact (Annexure-04)

# 14. Period of Validity of bids and Bid Currency

Bids shall remain valid for a period of 180 days from the date of submission of EOI response bid.

The prices in the bid document to be expressed in INR only.

# 15. RCIL's Right to Accept/Reject Bids

RCIL reserves the right to accept or reject any bid and annul the bidding process or even reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or without any obligation to inform the affected bidder or bidders about the grounds for RailTel's action.

# 16. Security Deposit / Performance Bank Guarantee (PBG)

In case RailTel submits BG to customer, Successful bidder has to furnish security deposit in the form of Performance Bank guarantee @ 3 - 10% of issued PO/ LOA value with tax of valid for 3 months beyond the date of completion of all contractual obligations including warrantee obligations. The same should be submitted within 30 days of issue of LOA/PO, failing which a penal interest of 15% per annum shall be charged for the delay period i.e. beyond 30 (thirty) days from the date of issue of LOA/PO. This PBG should be from a Scheduled Bank and should cover warranty period plus three months for lodging the claim. The performance Bank Guarantee will be discharged by the Purchaser after completion of the supplier's performance obligations including any warranty obligations under the contract.

- 16.1. The Performa for PBG is given in Form No. 1. If the delivery period gets extended, the PBG should also be extended appropriately.
- 16.2. The security deposit/PBG shall be submitted to Corporate Office & will bear no interest.
- 16.3. A separate advice of the BG will invariably be sent by the BG issuing bank to the RailTel's Bank through SFMS and only after this the BG will become acceptable to RailTel. It is therefore in interest of bidder to obtain RailTel's Bank IFSC code, its branch and address and advise these particulars to the BG Issuing bank and request them to send advice of BG through SFMS to the RailTel's Bank.
- 16.4. The security deposit/Performance Bank Guarantee shall be released after successful completion of Contract, duly adjusting any dues recoverable from the successful tenderer. Security Deposit in the form of DD/Pay Order should be submitted in the favour of "RailTel Corporation of India Limited" payable at New Delhi Only.
- 16.5. Any performance security upto a value of Rs. 5 Lakhs is to be submitted through DD/Pay order / online transfer only.
- 16.6. The claim period of PBG shall be 1 year after date of PBG validity

#### 17. Earnest Money Deposit (EMD)/ Bid Security

- 17.1. The bidder shall furnish a sum as Earnest Money in the form of online transfer or Demand Draft from any scheduled bank in India in favour of "RailTel Corporation of India Limited" payable at New Delhi.
- 17.2. The EMD may be forfeited if a bidder withdraws his offer or modifies the terms and conditions of the offer during validity period and in the case of a successful bidder, if the bidder fails to accept the Purchase order and fails to furnish performance bank guarantee (security deposit) in accordance with clause 6.
- 17.3. Offers not accompanied with Earnest Money shall be summarily rejected.
- 17.4. Earnest Money of the unsuccessful bidder will be discharged / returned as promptly as possible

- as but not later than 30 days after the expiry of the period of offer / bid validity prescribed by the Purchaser.
- 17.5. The successful bidder's EMD will be discharged upon the bidder's acceptance of the purchase order satisfactorily and furnishing the performance bank guarantee in accordance with clause 17.
- 17.6. Earnest Money will bear no interest.

#### 18. Deadline for Submission of Bids

Bids must be submitted to RCIL at the address specified in the EOI document not later than the specified date and time mentioned. If the specified date of submission of bids being declared a holiday for RCIL, the bids will be received up to the specified time in the next working day.

#### 19. Late Bids

Any bid received by RCIL after the deadline for submission of bids will be rejected and/or returned unopened to the bidder.

#### 20. Modification and/or Withdrawal of Bids

Bids once submitted will treated as final and no modification will be permitted. No correspondence in this regard will be entertained. No bidder shall be allowed to withdraw the bid after the deadline for submission of bids. In case of the successful bidder, he will not be allowed to withdraw or back out from the bid commitments.

#### 21. Clarification of Bids

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

# 22. Bidder's Information

Company Name:	
Type of RCIL Business Partner	
Status of Applicant (Partnership, Company etc.)	
Number of Years of Experience	
Number of office locations in India (Provide details)	No. 16
Number of office locations globally (Provide details)	
Number of employees in India and global	

CONTACT D	ETAILS:		
First Name	01 0	LastName	

Designation	
Address for correspondence	
Contact Number (Office Landline)	
Mobile Number	
Official Email ID	
GSTN No	
PAN No	
Bank Account No	
IFSC Code	
Registered Address of Company	

#### 23. Format for statement of Deviation

The following are the particulars of deviations from the requirements of the Instructions to bidders:

CLAUSE	DEVIATION	REMARKS (Including Justification)

# 24. Duration of the Contract Period

The contract duration shall be same as of RAILTEL'S CUSTOMER's contract duration with RailTel until otherwise terminated earlier. The initial contract period is 5 year from golive. The contract duration can be renewed / extended by RailTel at its discretion as per customer requirement, in case RAILTEL'S CUSTOMER extends / renews services with RailTel by virtue of extending / renewing / new issuance of one or more Purchase Order(s) placed by RAILTEL'S CUSTOMER to RailTel.

# 25. Variation in Contract

+/- 50 % variation may be operated during the period of validity of agreement with the approval of competent authority with similar terms and procedure as specified in the agreement.

# 26. Restrictions on 'Transfer of Agreement'

The SELECTED BIDDER shall not assign or transfer its right in any manner whatsoever under the contract / agreement to a third party or enter into any agreement for sub-contracting and/or partnership relating to any subject matter of the contract / agreement to any third party either in whole or in any part i.e. no sub-

contracting / partnership / third party interest shall be created.

#### 27. Suspension, Revocation or Termination of Contract / Agreement

- 27.1. RailTel reserves the right to suspend the operation of the contract / agreement, at any time, due to change in its own license conditions or upon directions from the competent government authorities, in such a situation, RailTel shall not be responsible for any damage or loss caused or arisen out of aforesaid action. Further, the suspension of the contract / agreement will not be a cause or ground for extension of the period of the contract / agreement and suspension period will be taken as period spent. During this period, no charges for the use of the facility of the SELECTED BIDDER shall be payable by RailTel.
- 27.2. RailTel may, without prejudice to any other remedy available for the breach of any conditions of agreements, by a written notice of Three (03) month issued to the SELECTED BIDDER, terminate/or suspend the contract / agreement under any of the following circumstances:
  - a) The SELECTED BIDDER failing to perform any obligation(s) under the contract / agreement.
- b) The SELECTED BIDDER failing to rectify, within the time prescribed, any defect as may be pointed out by RailTel.
- c) Non adherence to Service Level Agreements (SLA) which RailTel has committed to RAILTEL CUSTOMER for the pertinent tender.
- d) The SELECTED BIDDER going into liquidation or ordered to be wound up by competent authority.
- e) If the SELECTED BIDDER is wound up or goes into liquidation, it shall immediately (and not more than a week) inform about occurrence of such event to RailTel in writing. In that case, the written notice can be modified by RailTel as deemed fit under the circumstances. RailTel may either decide to issue a termination notice or to continue the agreement by suitable modifying the conditions, as it feels fit under the circumstances.
- f) It shall be the responsibility of the SELECTED BIDDER to maintain the agreed Quality of Service, even during the period when the notice for surrender/termination of contract / agreement is pending and if the Quality of Performance of Solution is not maintained, during the said notice period, it shall be treated as material breach liable for termination at risk and consequent of which SELECTED BIDDER's PBG related to contract / agreement along with PBG related to the Empanelment Agreement with RailTel shall be forfeited, without any further notice.
- g) Breach of non-fulfillment of contract / agreement conditions may come to the notice of RailTel through complaints or as a result of the regular monitoring. Wherever considered appropriate RailTel may conduct an inquiry either suo-moto or on complaint to determine whether there has been any breach in compliance of the terms and conditions of the agreement by the successful bidder or not. The SELECTED BIDDER shall extend all reasonable facilities and shall endeavor to remove the hindrance of every type upon such inquiry. In case of default by the SELECTED BIDDER in successful implementation and thereafter maintenance of services / works as per the conditions mentioned in this EOI document, the PBG(s) of SELECTED BIDDER available with RailTel will be forfeited.

#### 28. Dispute Settlement

- 28.1. In case of any dispute concerning the contract / agreement, both the SELECTED BIDDER and RailTel shall try to settle the same amicably through mutual discussion / negotiations. Any unsettled dispute shall be settled in terms of Indian Act of Arbitration and Conciliation 1996 or any amendment thereof. Place of Arbitration shall be New Delhi.
- 28.2. The arbitral tribunal shall consist of the Sole Arbitrator. The arbitrator shall be appointed by the Chairman & Managing Director (CMD) of RailTel Corporation of India Ltd..
- 28.3. All arbitration proceedings shall be conducted in English.

# 29. Governing Laws

The contract shall be interpreted in accordance with the laws of India. The courts at New Delhi shall have exclusive jurisdiction to entertain and try all matters arising out of this contract.

#### **30.** Statutory Compliance

- 30.1. During the tenure of this Contract nothing shall be done by SELECTED BIDDER in contravention of any law, act and/ or rules/regulations, there under or any amendment thereof and shall keep RailTel indemnified in this regard.
- 30.2. The Bidder shall comply and ensure strict compliance by his/her employees and agents of all applicable Central, State, Municipal and Local laws and Regulations and undertake to indemnify RailTel, from and against all levies, damages, penalties and payments whatsoever as may be imposed by reason of any breach or violation of any law, rule, including but not limited to the claims against RailTel or its Customer under Employees Compensation Act, 1923, The Employees Provident Fund and Miscellaneous Provisions Act, 1952, The Contract Labour (Abolition and Regulation) Act 1970, Factories Act, 1948, Minimum Wages Act and Regulations, Shop and Establishment Act and Labour Laws which would be amended/modified or any new act if it comes in force whatsoever, and all actions claim and demand arising there from and/or related thereto.

#### 31. Intellectual Property Rights

- 33.1. Each party i.e. RailTel and SELECTED BIDDER, acknowledges and agree that the other party retains exclusive ownership and rights in its trade secrets, inventions, copyrights, and other intellectual property and any hardware provided by such party in relation to this contract / agreement.
- 33.2. Neither party shall remove or misuse or modify any copyright, trade mark or any other proprietary right of the other party which is known by virtue of this EoI and subsequent contract in any circumstances.

### 32. Severability

In the event any provision of this EOI and subsequent contract with SELECTED BIDDER is held invalid or not enforceable by a court of competent jurisdiction, such provision shall be considered separately and such determination shall not invalidate the other provisions of the contract and Annexure/s which will be in full force and effect.

#### 33. Force Majeure

33.1. If during the contract period, the performance in whole or in part, by other party, of any obligation

under this is prevented or delayed by reason beyond the control of the parties including war, hostility, acts of the public enemy, civic commotion, sabotage, Act of State or direction from Statutory Authority, explosion, epidemic, quarantine restriction, strikes and lockouts (as are not limited to the establishments and facilities of the parties), fire, floods, earthquakes, natural calamities or any act of GOD (hereinafter referred to as EVENT), provided notice of happenings of any such event is given by the affected party to the other, within twenty one (21) days from the date of occurrence thereof, neither party shall have any such claims for damages against the other, in respect of such non-performance or delay in performance. Provided service under this contract shall be resumed as soon as practicable, after such EVENT comes to an end or ceases to exist.

33.2. In the event of a Force Majeure, the affected party will be excused from performance during the existence of the force Majeure. When a Force Majeure occurs, the affected party after notifying the other party will attempt to mitigate the effect of the Force Majeure as much as possible. If such delaying cause shall continue for more than sixty (60) days from the date of the notice stated above, the party injured by the inability of the other to perform shall have the right, upon written notice of thirty (30) days to the other party, to terminate this contract. Neither party shall be liable for any breach, claims, and damages against the other, in respect of non-performance or delay in performance as a result of Force Majeure leading to such termination.

# 34. Indemnity

- 34.1. The SELECTED BIDDER agrees to indemnify and hold harmless RailTel, its officers, employees and agents (each an "Indemnified Party") promptly upon demand at any time and from time to time, from and against any and all losses, claims, damages, liabilities, costs (including reasonable attorney's fees and disbursements) and expenses (collectively, "Losses") to which the Indemnified party may become subject, in so far as such losses directly arise out of, in any way relate to, or result from:
  - a) Any mis-statement or any breach of any representation or warranty made by SELECTED BIDDER or
  - b) The failure by the SELECTED BIDDER to fulfill any covenant or condition contained in this contract by any employee or agent of the Bidder. Against all losses or damages arising from claims by third Parties that any Deliverables (or the access, use or other rights thereto), created by SELECTED BIDDER pursuant to this contract, or any equipment, software, information, methods of operation or other intellectual property created by SELECTED BIDDER pursuant to this contract, or the SLAs (i) infringes a copyright, trade mark, trade design enforceable in India, (ii) infringes a patent issues in India, or (iii) constitutes misappropriation or unlawful disclosure or used of another Party's trade secrets under the laws of India (collectively, "Infringement Claims"); or
  - c) Any compensation / claim or proceeding by ECT or any third party against RailTel arising out of any act, deed or omission by the SELECTED BIDDER or
  - d) Claim filed by a workman or employee engaged by the SELECTED BIDDER for carrying out work related to this agreement. For the avoidance of doubt, indemnification of Losses pursuant to this

section shall be made in an amount or amounts sufficient to restore each of the Indemnified Party to the financial position it would have been in had the losses not occurred.

34.2. Any payment made under this contract to an indemnity or claim for breach of any provision of this contract shall include applicable taxes.

#### 35. Limitation of Liability towards RailTel

- 35.1. The SELECTED BIDDER liability under the contract shall be determined as per the Law in force for the time being. The SELECTED BIDDER shall be liable to RailTel for loss or damage occurred or caused or likely to occur on account of any act of omission on the part of the SELECTED BIDDER and its employees (direct or indirect), including loss caused to RailTel on account of defect in goods or deficiency in services on the part of SELECTED BIDDER or his agents or any person / persons claiming through under said SELECTED BIDDER, However, such liability of the SELECTED BIDDER shall not exceed the total value of the contract.
- 35.2. This limit shall not apply to damages for bodily injury (including death) and damage to real estate property and tangible personal property for which the SELECTED BIDDER is legally liable.

# 36. Confidentiality cum Non-disclosure

- 36.1. The Receiving Party agrees that it will not disclose to third party/parties any information belonging to the Disclosing Party which is provided to it by the Disclosing Party before, during and after the execution of this contract. All such information belonging to the Disclosing Party and provided to the Receiving Party shall be considered Confidential Information. Confidential Information includes prices, quotations, negotiated issues made before the execution of the contract, design and other related information. All information provided by Disclosing Party to the Receiving Party shall be considered confidential even if it is not conspicuously marked as confidential.
- 36.2. Notwithstanding the foregoing, neither Party shall have any obligations regarding non-use or non-disclosure of any confidential information which:
  - a) Is already known to the receiving Party at the time of disclosure:
  - b) Is or becomes part of the public domain without violation of the terms hereof;
- c) Is shown by conclusive documentary evidence to have been developed independently by the Receiving Party without violation of the terms hereof:
- d) Is received from a third party without similar restrictions and without violation of this or a similar contract.
- 36.3. The terms and conditions of this contract, and all annexes, attachments and amendments hereto and thereto shall be considered Confidential Information. No news release, public announcement, advertisement or publicity concerning this contract and/or its contents herein shall be made by either Party without the prior written approval of the other Party unless such disclosure or public announcement is required by applicable law.
  - 36.4. Notwithstanding the above, information may be transmitted to governmental, judicial,

regulatory authorities, if so, required by law. In such an event, the Disclosing Party shall inform the other party about the same within 30 (thirty) Days of such disclosure.

36.5. This Confidentiality and Non- Disclosure clause shall survive even after the expiry or termination of this contract.

#### 37. Insurance

The SELECTED BIDDER agrees to take insurances to cover all the elements of the project under this EOI including but not limited to Manpower, Hardware, Software.

#### 38. Waiver

Except as otherwise specifically provided in the contract, no failure to exercise or delay in exercising, any right, power or privilege set forth in the contract will operate as a waiver of any right, power or privilege.

#### **39.** Contract Agreement

RailTel shall sign SLA and contract agreement with selected bidder. No modification of the terms and conditions of the Contract Agreement shall be made except by written amendments signed by the both SELECTED BIDDER and RailTel. All other terms and conditions between SELECTED BIDDER and RailTel shall be on **back-to-back** basis as mentioned in Customer agreement.

# 40. Special terms and conditions

- 40.1. Bidder should submit detailed solution along with Bid and proposed solution must comply to scope of work (Annexure-03).
- 40.2. The selected bidder shall have the overall responsibility for the supply of equipment, installation, commissioning, operation, comprehensive on-site warranty and maintenance of proposed solution for a period of five (05) years from date of commissioning/Go-Live of solutions in all warehouses.
- 40.3. All terms and conditions shall be on back to back basis as per agreement/PO from Customer to RailTel.

## 41. Integrity Pact (IP) Program

- 41.1. RailTel has adopted Integrity Pact Program and for implementation thereof all EOI/RFPs relating to procurement of OFC, quad cable, pre-fab shelters, electronic equipment and its installation and/or commissioning etc and other item(s) or activity/activities proposed to be carried out or required by the Company for the value ex-ceding Rs. 15 crores at a time including for repair and maintenance of cable/network and any other items required for special works assigned to RailTel will be covered under the Integrity Pact Program and the vendors are required to sign the IP document and submit the same to RailTel before or along with the bids.
- 41.2. Only those vendors who have purchased the EOI/RFP document and signed the IP document can send their grievances, if any, to the Independent External Monitors (IEMs) and the nodal officer, i.e. Chief Vigilance Officer (CVO), RailTel.

Name of IEMs and contact details:

Mrs. Vinit Kumar Jayaswal
 Sh. Punati Sridhar
 E-Mail: gkvinit@gmail.com
 E-mail: poonatis@gmail.com

Name & Contact details of Nodal Officer (IP) in RailTel:

Chief Vigilance Officer

RailTel Corporation of India Ltd.
Plate-A, 6th Floor, Office Block Tower-2,
East Kidwai Nagar, New Delhi - 110023
e-mail: cvo[at]railtelindia[dot]com

- 41.3. If the order, with total value equal to or more than the threshold value, is split to more than one vendor and even if the value of PO placed on any/each vendor(s) is less than the threshold value, IP document having been signed by the vendors at bid stage it- self, the Pact shall continue to be applicable.
- 41.4. Bidder of Indian origin shall submit the Integrity Pact (in 2 copies) Annexure- 04 on a non-judicial stamp paper of Rs. 100/- or the appropriate value (as the case may be), duly signed by the person signing the bid. If the bidder is a partnership or a consortium, the Integrity Pact shall be signed by all the partners or consortium members.
- 41.5. Bidder of foreign origin may submit the Integrity Pact on its company's letterhead, duly signed by the person signing the bid.
- 41.6. The 'Integrity Pact' shall be submitted by the Bidder duly signed in all pages along with the Bid. Bid received without signed copy of the Integrity Pact document will be liable to be rejected. Format of Integrity Pact is enclosed in this Tender document.
- 41.7. One copy of the Integrity Pact shall be retained by RailTel and the 2nd copy will be issued to the representative of the bidders during bid opening. If the Bidder's representative is not present during the Bid opening, the 2nd copy shall be sent to the bidder by post/courier.
- 41.8. The Integrity Pact is applicable in this EOI/RFP vide CVC circular no. 10/05/09 dt. 18.05.09 and revised guideline of CVC circular no. 015/VGL/091 dt. 13.01.17 or the latest updated from time to time shall be followed.
- 41.9. Interested may also refer the URL for IP Program : <a href="https://www.railtel.in/tenders/integrity-pact.html">https://www.railtel.in/tenders/integrity-pact.html</a>



#### Format for COVERING LETTER

# **COVERING LETTER** (To be on company letter head)

EoI Reference No: RCIL/EOI/CO/ITB/2025-26/IT services to RCIL customer/4 dated 19.05.25

Date:

To,

JGM/IT RailTel Corporation of India Ltd. Plate-A, 6th Floor, Office Tower-2, NBCC Building, East Kidwai Nagar, New Delhi 110023

Dear Sir,

SUB: Participation in the EoI Process

Having examined the Invitation for EoI document bearing the reference number \_\_\_\_\_\_\_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. I/We also agree to keep this offer open for acceptance for a period of 180 days from the date of submission of EOI response bid to RailTel and in default thereof,

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.

#### **Authorized Signatory**

Name Designation Contact Details

# Compliance to Rule 144 (xi) of GFR, 2017 including amendments till date (On Organization Letter Head)

Bid Ref No.:
Date:
To,  Jt.General Manager (IT), RailTel Corporation of India Limited, Plate-A, 6 <sup>th</sup> Floor, Office Block Tower-2, East Kidwai Nagar, New Delhi - 110023
<b>Ref :</b> EOI No. RCIL/EOI/CO/ITB/2025-26/IT services to RCIL customer/4 dated 19.05.25 Dear Sir,
I, the undersigned, on behalf of M/s, have read the clause/para regarding restriction
on procurement from a bidder of a country which shares a land border with India and on sub-contracting to
contractors from such countries.
(a) I certify that M/s is not from such a country and will not sub-contract any work to
a contractor from such countries unless such contractor is registered with the Competent Authority. I also certify
that M/s will not offer any products / services of entity from such countries unless such
entity is registered with the Competent Authority.
<b>OR</b> (Strikeout either (a) or (b), whichever is not applicable)
(b) I certify that M/s is from such a country and has been registered with the
Competent Authority. I also certify that M/s has product/services of entity from such countries and
these entity / entities are also registered with the Competent Authority.
(Where applicable, evidence of valid registration by the Competent Authority is to be attached with the
bid.)
I hereby certify that M/s fulfills all requirements in this regard and is eligible to be
considered.
I hereby acknowledge that in the event of acceptance of my bid on above certificate and if the certificate
is found to be false at any stage, the false certificate would be a ground for immediate termination of contrac
and further legal action in accordance with the Law.
Signature of Authorised Signatory
Name Designation

# **Undertaking for Non-Blacklisting & Arbitration Case**

(On Organization Letter Head)

Bid R	ef No.	. :
Date:		

To,

Jt. General Manager (IT), RailTel Corporation of India Limited, Plate-A, 6<sup>th</sup> Floor, Office Block Tower-2, East Kidwai Nagar, New Delhi - 110023

**Ref : EOI No.** RCIL/EOI/CO/ITB/2025-26/IT services to RCIL customer/4 dated 19.05.25 Dear Sir,

I, the undersigned, on behalf of M/s ....., hereby submits that

- 1. We are not blacklisted by any State / Central Government Ministry / Department / Corporation / Autonomous Body at the time of submission of bid.
  - 2. We are not having any ongoing or past, arbitration case(s) with RailTel at the time of submission of bid.

Signature of Authorized Signatory

Name Designation



# Scope of Work for CCTV-based AI Analytical System

# **Project Overview:**

The objective of this project is to deploy a state-of-the-art CCTV-based AI Analytical System for the real-time monitoring and analysis of key areas.

#### Workstation for AI Analytics.

A workstation of following configuration shall be installed at site. All AI Analytics like FRS, Bag Counting, Fire & Smoke Detection System and Rodent Detection System shall be installed and configured on this workstation. Local storage will be utilised for storage of data while critical Alarms and snapshots will be backed up on the cloud storage.

Description	Specification
Product Category	Video Analytics Workstation
Processor	Intel® Xeon® Gold CPU
Number of CPUs	1
Memory	32GB
OS Storage (internal 2.5")	1TB SSD
HDD	SSD 1TB
Network	1Gbps Port
GPUs	NVidia 4600 or better
USB Ports	2x USB 3.0 Ports
Operating System	Ubuntu
Certification	CE, FCC

# 1. Face Recognition System (FRS):

#### 1.1 Hardware:

- Bullet Camera:
- o Resolution 4MP.
- Type Fixed lens
- Location Top of each Gate.

# 1.2. Software:

# • Real-Time Identification:

A one-time registration of the individuals shall be carried out. Individual faces may be registered directly via the camera or through any other high resolution camera including mobile camera.

- The system will capture facial images of individuals entering the compartment and compare them with the stored database to verify their identity. Upon positive identification, details of individuals shall be displayed else the resultant image shall be displayed under non registered category.
- Process of identification shall be completed within 3 seconds.
- Persons have to look up to the camera while entering through the gate to enable face recognition by the system.

#### • Exclusions:

Minimum 60% face area has to be visible to the camera. So persons not looking up to the camera may not be recognised by the system.

# 2. Bag Counting System:

#### 2.1. Hardware:

#### • Bullet Camera:

The cameras installed for FRS will also be used for bag counting.

#### 2.2. Software:

- As bags enter or exit the premises, they will be automatically counted by the system.
- Bag count data for bags entering and exiting the godown will be provided separately.

# 3. Fire and Smoke Detection System:

#### 3.1. Hardware:

- Dome Cameras:
- o Resolution 4MP.
- ∘ Type Fixed lens
- o Location Along the diagonally opposite corners of the compartment to maximize coverage and enhance the surveillance area. Suitable height can be determined after the survey

# 3.2. Software:

- AI Software for Detection:
- The software will utilize camera feed to detect fire and smoke. It will generate real-time alerts in case of fire or smoke, triggering immediate action.

#### **4. Rodent Detection System:**

# 4.1. Hardware:

- Dome Cameras:
- o Resolution 4MP.
- ∘ Type Fixed lens
- o Location Along the diagonally opposite corners of the compartment to maximize coverage and enhance the surveillance area. Suitable height can be determined after the survey

#### 4.2. Software:

# Automated Alerts and Reports:

Alerts will be sent in case a rodent movement is detected. A report will be automatically generated to initiate suitable remedial measures.

# 5. CO2 Sensor:

#### 5.1. Hardware:

# **CO2 Gas Sensors**:

• Two CO2 gas sensors will be installed at suitable levels of the stack, to monitor and measure CO2 concentrations.

#### 5.2. Software:

# **Alert System:**

o If CO2 levels exceed the predefined threshold, an alert will be triggered to notify relevant personnel to take action.

#### **Implementation Plan:**

# **6.1 Site Assessment and Planning:**

• Conduct an initial assessment of the site to finalize camera placements, sensor locations, and network configurations.

#### **6.2 Installation:**

- o Install cameras at identified spots.
- Set up the AI software and integrate it with the hardware.

# **6.3 System Testing:**

o Perform a thorough testing of all systems, including facial recognition, bag counting, fire/smoke detection, CO2 monitoring, and rodent detection, ensuring proper functionality and alert accuracy.

# 6.4 Training and Handover:

- o Provide comprehensive training to client staff on the use of the system.
- o Hand over all documentation and user manuals to the client.

#### **6.5 Maintenance and Support:**

o Carry out maintenance and support to ensure smooth operation and updates of the system.

# Face Recognition Software (FRS) – Smarter Security, Seamless Access

# Face Recognition Software (FRS)

The Face Recognition Software (FRS) is a cutting-edge biometric solution utilizing advanced artificial intelligence and deep learning technologies to provide fast, contactless, and highly accurate identity verification. FRS offers seamless real-time authentication, making it the ideal solution for high-security environments, modern workplaces, and various other applications requiring efficient and secure access control.

#### **How It Works**

# 1. Image Capture

High-resolution cameras capture live facial images or video frames, ensuring precise and clear data acquisition.

#### 2. Face Detection

The system detects and isolates key facial features, such as the eyes, nose, and jawline, enabling accurate extraction.

#### 3. Feature Extraction

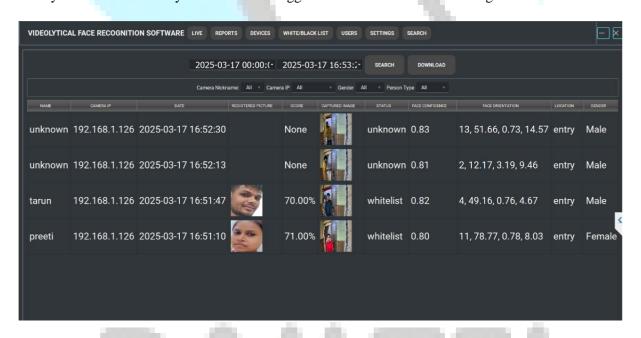
AI-driven algorithms convert these facial features into a unique digital signature, creating an individualized biometric profile.

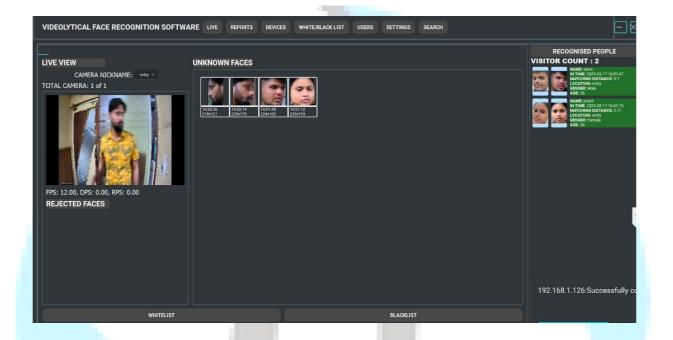
#### 4. Face Matching

The extracted facial signature is compared to pre-stored templates in the system's database to confirm identity.

#### 5. **Verification**

The system verifies identity in real-time or triggers an alert if the face is unrecognized.





# **Core System Architecture**

- 1. **Input Module**: Captures live images and video data in real-time.
- 2. **Detection Module:** Identifies and isolates facial regions with high precision.
- 3. **Extraction Module:** Converts facial features into unique mathematical vectors.
- 4. **Matching Engine**: Compares input vectors with stored database entries to confirm identity.
- 5. **Database:** A centralized repository for facial templates and event logs.
- 6. **User Dashboard**: An intuitive administrative interface for managing system controls and accessing data.

# **Key Applications**

- 1. **Smartphones**: Facial unlocking and secure device access.
- 2. **Airports & Border Security**: Streamlined passenger verification for faster processing.
- 3. **Corporate Offices**: Automated attendance tracking and controlled access management.
- 4. **Educational Institutions**: Efficient student attendance monitoring and secure access.
- 5. **Retail & Hospitality**: Personalized customer experiences with seamless access.
- 6. **Public Surveillance**: Law enforcement applications for monitoring and crime prevention.

# **Business Advantages**

- 1. **Touchless Authentication**: A hygienic and secure method of identity verification.
- 2. **Real-Time Processing**: Identity confirmation in seconds, ensuring smooth operations.
- 3. **Scalability**: Flexible for small enterprises and large organizations alike.
- 4. **Enhanced Security**: Mitigates the risks associated with password theft and identity fraud.
- 5. **Centralized Management**: Easily accessible reporting tools and audit trails for compliance.

# **Technical Specifications**

- 1. Hardware Requirements
- 1.1. **Camera Type**: Bullet Camera
- 1.2. **Resolution**: Minimum 2MP (Preferred: 4MP 2560×1440 pixels)
- 1.3. **Lens**: Fixed
- 1.4. **Installation Location**: Positioned at entry and exit gates
- 1.5. **Lighting Requirements**:  $\geq 60\%$  brightness for optimal accuracy
- 2. Software Features
- 2.1. **Real-Time Recognition**:
- 2.1.1. Instant comparison with pre-registered data.
- 2.1.2. Displays "Not Detected" for unrecognized faces.
- 2.1.3. Accurate entry/exit timestamps recorded for audit purposes.
- 2.2. **Data Management**:
- 2.2.1. Centralized database for facial records and event logs.
- 2.2.2. Comprehensive audit-ready reporting for compliance and review.
- 3. Network & Integration
- 3.1. **Connectivity**: LAN/Wi-Fi connected cameras for seamless integration.
- 3.2. **Data Processing:** Local server with restricted access for secure system operation.
- 3.3. **Security**: Only authorized systems can access critical data.
- 4. **Performance**: High recognition accuracy with negligible latency.
- 5. **Data Integrity**: 100% success rate for time-logging and face detection accuracy.

#### **Redefining Security with FRS**

The Face Recognition Software (FRS) is not just a security tool but a transformative step toward intelligent, automated identity verification. Whether managing high-traffic areas such as airports, controlling access within corporate offices, or monitoring secure facilities, FRS provides unparalleled safety, efficiency, and peace of mind. With FRS, organizations can ensure robust security, streamline operations, and maintain compliance, all while enhancing the user experience.

# Bag Counting System - Smart Inventory, Automated Accuracy, Scalable Solutions

#### **Bag Counting System**

The Bag Counting System is an advanced AI-powered solution designed to automate the real-time tracking of rice bags during warehouse entry and exit. Leveraging intelligent camera systems and machine learning algorithms, it adapts to various bag types and environments, ensuring highly accurate counts and seamless operations within warehouses.

#### **How It Works**

# 1. Image Capture:

High-resolution cameras capture video footage of rice bags as they pass through entry and exit points.

# 2. Real-Time Detection:

AI software detects individual rice bags, regardless of their shape, size, or texture.

#### 3. **Automated Counting:**

Each rice bag is counted as it passes, with data being logged and updated in real time.

## 4. Data Storage & Reporting:

Count logs are maintained separately for both incoming and outgoing inventory, accessible through a centralized dashboard.



# **Key Features**

- 5. **Real-Time Bag Counting:** Instant bag detection and logging during movement.
- 6. **Dual Functionality:** Cameras support both bag counting and facial recognition applications.
- 7. **AI-Powered Learning**: Continual model improvements through adaptive learning.
- 8. **Robust Performance:** Works efficiently under varied lighting conditions and object positioning.

9. **Live Dashboard**: Real-time data updates, with downloadable reports available in Excel format.

#### **Benefits**

- 1. **Eliminates Manual Counting Errors:** Ensures accurate inventory tracking.
- 2. **Ensures Accurate Inventory Records:** Real-time data logging and updates.
- 3. **Reduces Labor Costs:** Automates manual processes, saving time and resources.
- 4. **Scalable:** Easily deployable across multiple gates and warehouses.
- 5. **Enables Live Monitoring & Reporting:** Constant updates and downloadable reports for management.

#### **Technical Specifications**

# **System Overview**

- 1. AI-based automated counting system designed for rice bags.
- 2. Self-learning model for continuous accuracy improvement.

### **Hardware Specifications**

- 1. **Camera Type:** Bullet Camera
- 2. **Resolution:**  $4MP(2560 \times 1440 \text{ pixels})$
- 3. **Dual Use:** Bag counting and facial recognition
- 4. **Placement:** Entry and exit points of the warehouse.

#### **Software Features**

- 1. Real-time detection and counting of bags.
- 2. Separate logs for inbound and outbound bags.
- 3. Adaptable to various bag shapes, sizes, and lighting conditions.
- 4. Live dashboard view with downloadable Excel reports.
- 5. Current (Untrained System) Accuracy: 75%
- 6. **Projected Accuracy:** 90% (after 3 months), 95% (after 6 months).

# **Network & Integration**

- 1. Integrated into the warehouse LAN system for seamless functionality.
- 2. Remote access available via central dashboard.
- 3. Continuous video feed securely stored on the server.

# **Server & Processing**

- 1. Dedicated server for real-time AI processing.
- 2. Machine learning-enhanced intelligent model.
- 3. Stable performance even under dynamic operational conditions.

The Bag Counting System is a reliable, intelligent solution for automating warehouse inventory management in real time. With its scalable deployment potential, high accuracy, and minimal maintenance requirements, it's the perfect tool to streamline logistics in modern warehouse environments.

# CCTV-Based Fire and Smoke Detection System – Early Detection. Instant Alerts. Enhanced Safety.

#### **Fire and Smoke Detection System**

The Fire and Smoke Detection System integrates cutting-edge technology, including AI-driven video analytics, optical smoke sensors, and thermal sensors, to provide early detection of fire or smoke hazards in critical environments. This system is designed to enhance safety by delivering fast, real-time alerts and ensuring timely intervention to protect personnel, assets, and infrastructure.

# **Key Features**

- 1. AI-Powered Smoke and Fire Detection
- 2. Fast Detection with Minimal False Alarms
- 3. Real-Time Alerts (SMS/Email/Alarms)
- 4. Automated Integration with Fire Suppression Systems
- 5. Full Coverage Monitoring
- 6. Data Logging and Incident Archiving

#### **How It Works**

- 1. Camera & Sensor Setup
- 1.1. **Smoke Sensors**: Optical photoelectric sensors detect smoke plumes.
- 1.2. **Heat Sensors**: Rate-of-rise and fixed temperature sensors monitor for sudden temperature increases, often a precursor to fire.
- 1.3. **Thermal Cameras**: Detect flame patterns and heat anomalies.
- 2. **AI-Powered Video Analytics**

Cameras continuously send video data, which is processed using machine learning algorithms to detect smoke movement, flame flickering, and sudden temperature shifts.

- 3. Early Detection and Alarm Trigger
- 3.1. **Fire/Smoke Detection**: The system identifies abnormal visual patterns and triggers alerts.
- 3.2. **Immediate Action**: Alerts are sent via alarms, control systems, mobile notifications, or even triggering automatic fire suppression systems (e.g., sprinklers).

# **System Components**

1. Camera Module:

- 1.1. **Type**: Full HD IP Camera (2MP minimum)
- 1.2. **Night Vision**: Enabled
- 1.3. **Placement**: Central locations within compartments for 360° coverage
- 2. **Sensor Modules**:
- 2.1. **Smoke Detectors**: Optical photoelectric sensors
- 2.2. **Heat Detectors**: Rate-of-rise and fixed temperature sensors
- 3. **Control Dashboard**:
- 3.1. Provides a central interface to monitor fire/smoke alerts
- 3.2. Visualizes detected events and offers quick access to control systems
- 4. **Alert System:**
- 4.1. Sends alerts via buzzer, SMS, email, and control panels
- 4.2. Real-time alerts to emergency personnel

#### **Technical Specifications**

1. Hardware Components

# **Sensor Types**

- 1.1. **Smoke Detector**: Optical Photoelectric Sensor
- 1.2. **Sensitivity**: EN54-7 compliant
- 1.3. **Detection Range**: 0.03 to 0.15 dB/m

#### **Heat Detector**

- 1.4. **Type**: Rate-of-Rise and Fixed Temperature
- 1.5. **Threshold**:  $57^{\circ}\text{C} \pm 3^{\circ}\text{C}$

#### **Combined Detectors**

1.6. Dual Sensor Design (Heat + Smoke) for enhanced reliability

# **Power Supply**

- 1.7. **Power**: 24V DC, centrally powered with battery backup
- 1.8. **UPS Backup**: Minimum 4–6 hours

# **Cameras for Video Analytics**

- 1.9. **Type**: Full HD IP Camera with Intelligent Video Analytics
- 1.10. **Resolution**: Minimum 2MP
- 1.11. **Field of View (FOV)**: Wide-angle ( $\geq 120^{\circ}$ )
- 1.12. **Night Vision**: Enabled
- 1.13. **Placement**: Installed in strategic locations within compartments
- 2. Software Capabilities
- 2.1. AI-Based Smoke/Fire Detection
- 2.2. Detects smoke plumes or flames using real-time video analytics
- 2.3. Uses machine learning algorithms to identify patterns

# **Alert System**

- 2.4. Sends immediate alerts via SMS, email, buzzer, or control panel notifications
- 2.5. Integrates with fire suppression systems (optional)

# **Data Logging**

- 2.6. Time-stamped incident logs for each detection event
- 2.7. Stores video snapshots for analysis
- 3. **Integration & Connectivity**
- 3.1. **System Integration**
- 3.1.1. Compatible with existing Building Management Systems (BMS) or safety systems
- 3.1.2. Optional integration with fire suppression systems (sprinklers, etc.)
- 3.2. Connectivity
- 3.2.1. **Network**: Wired Ethernet / Wi-Fi enabled
- 3.2.2. **Central Dashboard**: Monitors and controls all compartments

# **Testing & Results**

- 1. **Testing Process**:
- 1.1. Simulated fire and smoke tests conducted in controlled environments.
- 1.2. Verified sensitivity and performance of heat and smoke sensors.
- 2. **Performance**
- 2.1. **Detection Speed**: ≤15 seconds from ignition
- 2.2. **Accuracy**: ~95% with minimal false triggers

#### **Benefits**

- 1. **Early Fire Warning:** Gain critical seconds through fast detection, enhancing safety.
- 2. **Automated Alerts**: Instant notifications reduce dependency on human monitoring.
- 3. **Enhanced Safety**: Protects inventory, personnel, and infrastructure.
- 4. **Cost-Effective**: Reduces potential damages, operational downtime, and insurance claims.
- 5. **Comprehensive Coverage**: Monitors even hard-to-reach or remote areas.

The Fire and Smoke Detection System offers a modern, AI-driven solution for fast and accurate fire detection. By integrating smoke sensors, heat detectors, and advanced video analytics, the system provides timely alerts and automates emergency responses, making it an invaluable asset in industrial plants, commercial buildings, and public spaces.

# CCTV-Based Rodent Detection System – AI-Powered Surveillance for Rodent-Free Environments

# **Rodent Detection System**

The **Rodent Detection System** integrates AI and machine learning to offer a robust, real-time solution for monitoring rodent activity in sensitive areas such as warehouses, food production facilities, and residential buildings. Utilizing intelligent motion detection and object recognition, it provides proactive alerts, visual evidence, and automated reporting, enhancing hygiene, safety, and operational efficiency.

#### **Key Features**

- 1. **AI-Powered Rodent Detection**: Detects rodent movements with high accuracy, differentiating them from other objects.
- 2. **Real-Time Alerts**: Immediate notifications via SMS or email with video clips and timestamps.
- 3. **Automated Reports**: Generated in PDF or Excel formats, helping track trends and take timely actions.
- 4. **24/7 Monitoring:** Continuous surveillance with data logging to ensure ongoing security.
- 5. **Scalable Deployment**: Adaptable to any facility size, from small spaces to large warehouses.

#### **How It Works**

#### 1. Surveillance Camera Setup

Fixed-lens dome cameras are placed in key areas to monitor for movements, offering round-the-clock surveillance.

# 2. Motion Detection & Object Recognition

AI algorithms track movements and classify objects based on size, shape, and behavior, ensuring accurate identification of rodents.

#### 3. Real-Time Alerts

The system triggers instant alerts, sending video clips and timestamps to designated personnel.

# 4. **Automated Reporting**

Reports are automatically generated, providing facility managers with actionable insights on rodent activity.

# **Applications**

- 1. **Food Industry:** Ensures compliance with hygiene standards and prevents contamination.
- 2. **Warehouses & Storage:** Safeguards inventory from rodent damage.
- 3. **Residential Buildings & Housing Societies:** Enhances pest control in urban settings.
- 4. **Agricultural Environments:** Protects crops and stored goods from rodent damage.
- 5. **Public Health Monitoring**: Tracks rodent activity in public spaces for health and safety measures.

# **Operational Highlights**

1. **Surveillance:** Full coverage with 2MP Full HD dome cameras.

- 2. **Real-Time Alerts:** Immediate SMS or email notifications.
- 3. **Automated Reports:** Generate PDF/Excel reports for tracking rodent activity.
- 4. **Time-Stamped Logs:** Continuous monitoring with historical data storage.
- 5. **Night Vision**: IR-enabled cameras for 24/7 detection.

# **Technical Specifications**

- 1. Camera Hardware:
- 1.1. **Model**: Dome Surveillance Camera
- 1.2. **Resolution**: 2MP (1920×1080 Full HD)
- 1.3. **Lens**: Fixed (2.8mm or 4mm)
- 1.4. **Night Vision**: IR-enabled (20-30 meters)
- 1.5. **Mount Type**: Ceiling or wall-mounted
- 2. **Detection Capabilities:**
- 2.1. **AI Detection Accuracy**: 85–95%
- 2.2. **Motion Detection**: Tracks small, fast movements typical of rodents
- 2.3. **Frame Rate**: 20–25 fps
- 3. Connectivity & Storage:
- 3.1. **Network**: Ethernet / Wi-Fi
- 3.2. **Storage**: On-site NVR with optional cloud backup
- 3.3. **Power Supply**: 12V DC, with 4–6 hours UPS backup for continuous operation

# **Benefits**

- 1. Improved Hygiene & Safety Compliance: Helps businesses meet hygiene and pest control standards.
- 2. **Cost-Efficient Monitoring**: Reduces the need for manual inspections.
- 3. **Long-Term Rodent Control**: Provides data-driven insights to ensure sustainable rodent management.
- 4. **Enhanced Operational Efficiency**: Allows for swift responses to detected activity, preventing damage.

The **Rodent Detection System** offers a cutting-edge, AI-powered solution for monitoring and controlling rodent activity. With its real-time alerts, automated reporting, and scalable deployment, this system significantly improves safety, hygiene, and operational efficiency. Whether in food production, warehouses, or residential areas, it provides effective rodent management and supports compliance with health and safety regulations.

# 41.10. CO<sub>2</sub> Gas Sensors – Real-Time Air Quality, Automated Alerts, Scalable Safety

# CO2 Gas Sensors

The CO<sub>2</sub> Gas Sensors is a state-of-the-art, sensor-based solution designed to monitor carbon dioxide levels in warehouses, storage facilities, and enclosed industrial environments. Using advanced **NDIR** (Non-Dispersive Infrared) sensors and real-time software integration, it ensures optimal air quality for both safety compliance and worker health. The system enables live monitoring, instant alerts, and automated data logging to streamline environmental management operations.

#### **How It Works**

#### 1. Sensor Deployment:

CO<sub>2</sub> sensors are strategically placed at different stack levels and wall-mounted positions for accurate stratified air quality monitoring.

#### 2. Real-Time Detection:

The system continuously measures and transmits CO<sub>2</sub> readings, updating a centralized dashboard in real time.

#### 3. Automated Alerts:

If gas levels breach set safety thresholds, the system instantly sends SMS or email notifications to assigned personnel.

# 4. Data Logging & Reporting:

All readings are time-stamped and logged securely for compliance reporting, audits, and historical trend analysis.

#### **Key Features**

- 1. NDIR-Based CO<sub>2</sub> Sensors: High precision and low maintenance sensors for reliable performance.
- 2. **Live Dashboard Monitoring:** Real-time CO<sub>2</sub> concentration display with historical data logs.
- 3. **Smart Alert System:** Instant notifications via SMS/email on threshold breach.
- 4. **Layered Sensor Placement:** Enhanced accuracy through vertically stratified monitoring.
- 5. **Expandable Infrastructure:** Scalable solution deployable across multiple facilities.

#### **Technical Specifications**

#### System Overview

- 1. Intelligent CO<sub>2</sub> monitoring using NDIR-based sensors.
- 2. Centralized software for real-time updates, alerts, and reporting.

# Hardware Specifications

- 1. **Sensor Type:** ExplorIR®-M (Robust NDIR sensor)
- 2. **Measurement Range:** Configurable 0–5%, 0–20%, or 0–100% CO<sub>2</sub>
- 3. **Accuracy:**  $\pm 70$  ppm or  $\pm 5\%$  of reading

4. **Sample Method:** Diffusion

4.1 Mounting: Wall-mounted, shock- and vibration-resistant housing

4.2 **Operating Temperature:** -25°C to +55°C 4.3 **Humidity Range:** 0–95% RH (non-condensing)

# Power & Connectivity

1.Supply Voltage: 3.3V (range 3.25V–5.5V DC)

2.Power Consumption: <3.5 mW</li>3.Communication: 3.3V TTL UART4. Network: Internal LAN or secure Wi-Fi

The CO<sub>2</sub> Gas Monitoring System offers a smart, scalable, and efficient way to maintain safe air quality in enclosed environments. Its real-time detection, automated alerts, and low-maintenance sensors make it an essential tool for modern warehouses focused on worker safety, regulatory compliance, and operational excellence.



# PROFORMA FOR PERFORMANCE BANK GUARANTEE BOND (On Stamp Paper of Rs one hundred)

# (To be used by approved Scheduled Banks)

1. In consideration of the RailTel Corporation of India Limited, having its registered office at Plate-A,
6th Floor, Office Tower-2, NBCC Building, East Kidwai Nagar, New Delhi-110023 having agreed to exempt
from the demand, under the terms and conditions of an Purchase Order No
(hereinaftercalled "the said Agreement") of security deposit for the due fulfillment by the said Contractor (s) of the terms and conditions contained in the said Agreement, on production of a Bank Guarantee for Rs
2. We,
3. We,
4. We,
5. We,

our obligations hereunder to vary any of the terms and conditions of the Agreement or to extend time of to postpone for any time or from time to time any of the powers exercisable by the RailTel against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension to the said Contractor(s)

or for any forbearance, act or omission on the part of RailTel or any indulgence by the RailTel to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have affect of so relieving us.

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

(indicate the name of Bank) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the RailTel in writing.

the day of 2024	
for(indicate the name of	
Witness	the Bunk)

- 1. Signature Name
- 2. Signature Name

Note: Claim Period of BG will be 365 days more than the BG Validity date.

RailTel Bank Detail for SFMS are:

- To mandatorily send the Cover message at the time of BG issuance.
- IFSC Code of ICICI Bank to be used (ICIC0000007).
- Mention the unique reference(RAILTEL6103)in field 7037



# PROFORMA FOR SIGNING THE INTEGRITY PACT

(On Stamp paper of Appropriate Value)

RailTel Corporation of India Limited, hereinafter referred to as "The Principal".

And	
, hereinafter referred to as "The Bidder/ Contractor"	,
Preamble	
The Principal intends to award, under laid down organizational procedures, contr	act/s for
	nd, rules,
regulations, economic use of resources and of fair- ness/transparency in its relations with its l	Bidder(s)
and /or Contractor(s).	

In order to achieve these goals, the Principal will appoint an Independent External Monitor (IEM), who will monitor the EOI/RFP process and the execution of the contract for compliance with the principles mentioned above.

# **Section 1- Commitments of the Principal**

- 1. The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-
- a. No employee of the Principal, personally or through family members, will in connection with the EOI/RFP for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
  - b. The Principal will during the EOI/RFP process treat all Bidder(s) with equity and reason.

The Principal will in particular, before and during the EOI/RFP process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the process or the contract execution.

- c. The Principal will exclude from the process all known prejudiced persons.
- 2. If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

# Section 2- Commitments of the Bidder(s) /Contractor(s)

- 1. The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the EOI/RFP process and during the contract execution.
- a. The Bidder(s)/contractor(s) will not, directly or through any other persons or firm, offer promise or give to any of the Principal's employees involved in the EOI/RFP process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage during EOI/RFP process or during the execution of the contract.
- b. The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s) /Contractors will not use improperly, for purposes of com- petition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly, the bidder(s)/contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any.
  - e. The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he

has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract. Further, details as mentioned in the "Guidelines on Indian Agent of Foreign Suppliers" shall be disclosed by the Bidder(s) / Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent / representative have to be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" as annexed and marked as Annexure-A.

2. The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

# Section 3: Disqualification from EOI/RFP process and exclusion from future contracts

If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the EOI/RFP process or take action as per the procedure mentioned in the "Guidelines on banning of business dealings". Copy of the "Guidelines on Banning of Business Dealings" is annexed and marked as Annexure-B.

# **Section 4: Compensation for Damages**

- 1. If the Principal has disqualified the Bidder(s) from the EOI/RFP process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/Bid Security.
- 2. If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to be terminated the contract according to Section 3, the Principal shall be en-titled to demand and recover from the Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Guarantee.

# **Section 5: Previous Transgression**

1. The Bidder declares that no previous transgressions occurred in the last three years with any other company in any country conforming to the anti-corruption approach or with any other public sector enterprise in India that could justify his exclusion from the EOI/RFP process.

2. If the bidder makes incorrect statement on this subject, he can be disqualified from the EOI/RFP process for action can be taken as per the procedure mentioned in "Guidelines on Banning of business dealings".

# Section 6: Equal treatment of all Bidders/ Contractors/Subcontractors

- 1. The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
- 2. The Principal will enter into agreements with identical conditions as this one with all bidders, contractors and subcontractors.
- 3. The Principal will disqualify from the EOI/RFP process all bidders who do not sign this Pact or violate its provisions.

# Section 7: Criminal charges against violation by Bidder(s) / Contractor(s) / Sub Contractor(s)

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer.

# **Section 8: Independent External Monitor / Monitors**

- 1. The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- 2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, RailTel.
  - 3. The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction

to all project documentation of the Principal including that provided by the Con- tractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/Subcontractor(s) with confidentiality.

- 4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- 5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- 6. The Monitor will submit a written report to the CMD, RailTel within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
- 7. Monitor shall be entitled to compensation on the same terms as being extended to provided to Independent Directors on the RailTel Board.
- 8. If the Monitor has reported to the CMD, RailTel, a substantiated suspicion of an offence under relevant IPC/PC Act, and the CMD, RailTel has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
  - 9. The word 'Monitor' would include both singular and plural.

# **Section 9: Pact Duration**

This pact begins when both parties have legally signed it. It expires for the Contractor 10 months

after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made / lodged by either party during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by CMD of RailTel.

#### **Section 10: Other Provisions**

- 1. This agreement is subject to Indian Law, Place of performance and jurisdiction is the Registered Office of the Principal, i.e. New Delhi.
  - 2. Changes and supplements as well as termination notices need to be made in writing.
- 3. If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- 4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(For & On behalf of the Principal)	
(Office Seal)	
Place —	
Date ————	C.C1
(For & On behalf of Bidder/Contractor)	
(Office Seal)	
	1 40 40 1
Place ———	1 1 1-1
Date ———	

Witness 1:	\	-	
(Name & Address			
Witness 2:			
(Name & Address	******End of EOI	document *****	

# RAILTEL