

Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region

RFP No. IHMCL/VMECS/2026

Date: 18/02/2026

Issued by

Indian Highways Management

Company Limited

Asia Bhawan, Sector-09, Dwarka,

New Delhi- 110077



NOTICE INVITING RFP

RFP No. IHMCL/VMECS/2026

Dated: 18/02/2026

- i. Indian Highways Management Company Limited (IHMCL), on behalf of the NHAI, invites online bids from eligible Acquirer Banks for Design, Development, Supply, Installation, Testing, Commissioning, Operation and Maintenance of Vehicle Monitoring, Enforcement and Collection System for National Capital Region at designated locations at the merging points of Eastern Peripheral Expressway (EPE) and Western Peripheral Expressway (WPE) towards Delhi-NCR, on a Fixed Per Transaction Fee Model.
- ii. The Project shall be a complete turnkey solution with provision of requisite infrastructure and implementation & skilled resources at location for operation and maintenance. The period of engagement shall be Five (05) years post Go-Live. The bidding firm shall be required to implement the solution within 02 Months from the date of signing of the Contract Agreement.
- iii. The prospective bidders are hereby invited to submit their bids comprising Technical and Financial bids through e-tendering mode only. The bid shall be valid for 120 days w.e.f. bid due date. The bids should be submitted online only on e-tender portal (<https://etenders.gov.in>) of Government of India and in the prescribed formats. No change in the formats and / or other mode of bid submission is permissible.
- iv. Bidder should pay Tender Application Fee (non-refundable) of INR 25,000/- (Rupees Twenty-Five Thousand Only) inclusive of GST through online mode to IHMCL's Bank account as mentioned in the RFP. The bidder shall also upload the online payment receipt.
- v. The Indian Highways Management Company Limited now invites bids from eligible bidders for the following project:

Region	RFP Ref No.	Name of Work
Delhi-National Capital Region	RFP No. IHMCL/VMECS/2026	Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region

- vi. The complete BID document can be viewed / downloaded from official portal of IHMCL <http://www.ihmcl.co.in> or e-procurement portal <https://etenders.gov.in> from 18/02/2026 to 27/03/2026. Bidder must submit online its technical and financial bid at <https://etenders.gov.in> on or before 27/03/2026 up to 05:00 PM IST. Bids received online shall be opened on 30/03/2026 at 5:30 PM IST
- vii. Bidding through any other mode shall not be entertained. Please note that the Authority reserves the right to accept or reject the bids without assigning any reason whatsoever.

Officer In-charge:

COO - IHMCL,

Indian Highways Management Company Limited

Asia Bhawan, Sector-09, Dwarka, New Delhi- 110077

Phone – 011- 25074100 Extn – 1804, e-mail: tenders@ihmcl.com

Disclaimer

The information contained in this RFP document (the "RFP document") or subsequently provided to Bidder(s), whether verbally or in documentary or any other form by or on behalf of IHMCL or any of its employees or advisors, is provided to Bidder(s) on the terms and conditions set out in this RFP document and such other terms and conditions subject to which such information is provided.

This RFP document is not an agreement and is neither an offer nor an invitation by IHMCL to the prospective bidders or any other person. The purpose of this RFP document is to provide interested parties with information that may be useful to them in making their technical/ financial offers ("Bid(s)") pursuant to this RFP document. This RFP document includes statements, which reflect various assumptions and assessments arrived at by IHMCL in relation to the Project. Such assumptions, assessments, and statements do not purport to contain all the information that each Bidder may require. This RFP document may not be appropriate for all persons, and it is not possible for IHMCL, its employees, or advisors to consider the investment objectives, financial situation, and particular needs of each party who reads or uses this RFP document.

The assumptions, assessments, statements, and information contained in this RFP document may not be complete, accurate, adequate, or correct. Each bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability, and completeness of the assumptions, assessments, statements, and information contained in this RFP document and obtain independent advice from appropriate sources. Bidders acknowledge that they are responsible for conducting their own independent assessments, analyses, and due diligence to determine the suitability of their proposals and the requirements of the project.

The information provided in this RFP document to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of the law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of the law. IHMCL accepts no responsibility for the accuracy or otherwise of any interpretation or opinion of the law expressed herein. All information, specifications, requirements, and terms contained in this RFP are subject to change, modification, or withdrawal at the discretion of IHMCL without prior notice.

IHMCL, its officers, employees and its advisors make no representation or warranty and shall have no liability to any person, including any applicant or bidder under any law, statute, rules or regulations, or tort, principles of restitution or unjust enrichment, or otherwise, for any loss, damages, cost, or expense which may arise from or be incurred or suffered on account of anything contained in this RFP document or otherwise, including the accuracy, adequacy, correctness, completeness, or reliability of the RFP document and any assessment, assumption, statement, or information contained therein or deemed to form part of this RFP document or arising in any way for participation in this Bid.

IHMCL also accepts no liability of any nature, whether resulting from negligence or otherwise, howsoever caused, arising from the reliance of any bidder upon the statements contained in this RFP document. IHMCL may, in its absolute discretion, but without being under any obligation to do so, update, amend, or supplement the information, assessment, or assumptions contained in this RFP document.

The issue of this RFP document does not imply that IHMCL is bound to select a bidder or to appoint the successful bidder for the Project and IHMCL reserves the right to reject all or any of the bidders or bids without assigning any reason whatsoever. Further, IHMCL reserves the right to cancel the bidding

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process, or pursue alternative procurement methods at any stage without incurring any liability to bidders. Bidders agree to indemnify and hold harmless IHMCL, its officers, employees, and agents from any claims, damages, liabilities, or expenses arising out of or related to their participation in the bidding process, submission of proposals, or performance under the contract.

The bidder shall bear all costs associated with or relating to the preparation and submission of their bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations that may be required by IHMCL or any other costs incurred in connection with or relating to bid. All such costs and expenses will remain with the bidder and IHMCL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a bidder in preparation or submission of the bid, regardless of the conduct or outcome of the bidding process.

DOCUMENT COMPOSITION

This RFP Documents comprise the following parts:

Part-I	Instructions to Bidders
Part-II	Formats for Bid Submission
Part-III	Draft Format of Contract Agreement
Section 1.1	Draft Contract Agreement
Section 1.2	General Conditions of Contract
Schedule A	Details of Site
Schedule B	<ul style="list-style-type: none">• Detailed Scope of Work<ul style="list-style-type: none">○ Design & Development of the VMECS System.○ Operation & Maintenance of VMECS System.• Service Level Agreements (SLA)
Schedule C	<ul style="list-style-type: none">• Functional & Technical Specifications• Indicative Minimum Bill of Quantities (BoQ)

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DEFINITIONS

S.No	Term	Definition
1.	Acquirer Bank	The member bank certified by NPCI as an Acquirer Bank under NETC program.
2.	Applicable Law	Are the laws applicable in India
3.	Authority	Indian Highways Management Company Limited (IHMCL)/ National Highway Authority of India (NHAI)/ Concerned Government Body
4.	Authorized Representative	Authorised Representative of bidder
5.	Charges	A Fee to be charged from eligible vehicles as notified by the Authority.
6.	Commission for Air Quality Management (CAQM)	CAQM means the Commission for Air Quality Management in National Capital Region and Adjoining Areas, constituted by the Government of India under the Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021, responsible for planning, coordinating, supervising, monitoring and enforcing measures for improvement of air quality in the National Capital Region and adjoining areas, including issuance of directions, advisories and regulatory measures related to vehicular emissions and environmental compliance.
7.	CCH	Central Clearing House (Currently managed by NPCI)
8.	Commencement Date or Effective Date	The date on which the Successful Bidder signs the Contract Agreement.
9.	Communication network	A wired or wireless facility used to send and receive data between the centralized component and the Vehicle Monitoring, Enforcement and Collection System .
10.	Command & Control Centre (CCC)	“Command and Control Central (CCC)” means the centralized facility under Vehicle Monitoring, Enforcement and Collection System (VMECS) responsible for real-time monitoring, control, transaction processing, Validation and enforcement coordination, including integration with VAHAN, FASTag ecosystem and Government enforcement systems, for automated collection of Environment Charges and issuance of e-notices in a multi-lane free-flow environment.

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S.No	Term	Definition
11.	Decision support	Reports, Graphs, Dashboard and Alerts, etc. which shall help in supporting decisions for Multi- Lane Free Flow project
12.	Detection	Count and Classification of vehicle passing through a gantry system.
13.	Downtime	"Downtime" refers to the period during which VMECS equipment or system is either non-functional or not actively operating to execute its intended tasks effectively, thus failing to meet the operational characteristics outlined in the RFP document due to significant interruptions or failures.
14.	FASTag	Passive RFID tag issued by bank for a specific vehicle for toll collection
15.	Good Industry Practice	"Good Industry Practice" means the practices, methods, techniques, designs, standards, skills, diligence, efficiency, reliability and prudence which are generally and reasonably expected from a reasonably skilled and experienced contractor engaged in the same type of undertaking as envisaged under this Agreement and which would be expected to result in the performance of its obligations by the Contractor in accordance with this Agreement, Applicable Laws and Applicable Permits in reliable, safe, economical and efficient manner.
16.	Issuer Bank	The bank who has issued the FASTag.
17.	Lane	A lane is part of a roadway (carriageway) that is designated for use by a single file of vehicles, to control and guide drivers.
18.	Vehicle Monitoring, Enforcement and Collection System (VMECS)	Vehicle Monitoring, Enforcement and Collection System (VMECS) means an advanced, barrier-less and fully automated technology platform designed for the detection, identification, classification, validation, enforcement, and electronic collection of Government-notified charges, including Environment Charges, from eligible vehicles entering designated enforcement zones within the Delhi-NCR region, utilizing technologies such as RFID, ANPR etc., and operating across multiple lanes without requiring vehicles to slow down, stop, or pass through dedicated toll or enforcement lanes, thereby ensuring seamless, uninterrupted traffic flow and reduced congestion.
19.	VMECS Components	The components used to implement the VMECS Solution.
20.	MoRTH	Ministry of Road Transport and Highways

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S.No	Term	Definition
21.	Network Control Software	Application software that generates, monitors, and manages the transaction for all intersections under the Vehicle Monitoring, Enforcement And Collection System(VMECS).
22.	NPCI	National Payments Corporation of India (NPCI), an umbrella organisation for operating retail payments and settlement systems in India, is an initiative of Reserve Bank of India (RBI) and Indian Banks' Association (IBA) under the provisions of the Payment and Settlement Systems Act, 2007
23.	Sub-Contractor/ SI	The document uses "Sub-Contractor", "System Integrator" and ""SI" interchangeably. They refer to the Agency engaged by Acquirer Bank for implementation and maintenance of VMECS solution.
24.	Successful Bidder	The "bidder", "Bank" and "Acquirer Bank" interchangeably, after the complete evaluation process, has been issued the letter of award by IHMCL.
25.	Toll Monitoring and Control Centre (TMCC)	" TMCC " refers to the Toll Monitoring and Control Centre established at IHMCL/NHAI headquarters in New Delhi for monitoring and maintaining the VMECS equipment health status, as well as the traffic and revenue data of all defined locations.
26.	Turnkey	End to End from the initial design and planning to the final implementation and commissioning.
27.	Un-settled Transactions	Failed transactions owing to blacklisting / low- balance / in-sufficient balance/ non-functional tag/ close tag/ unregistered tag/ hot listed tag and any transaction posted beyond defined TAT is called as Unsettled Transactions as per Procedural Guidelines under the NETC programme (amended time to time)
28.	Uptime	Uptime " refers to the duration during which an VMECS equipment or system is actively functioning, operating, and ready to execute its intended tasks effectively, meeting the operational characteristics as defined in the RFP document, without encountering significant interruptions or failures.
29.	VAHAN/SARATHI	VAHAN/SARATHI means the e-Governance applications developed and implemented by the Ministry of Road Transport and Highways (MoRTH), Government of India, under the National Transport Project, wherein VAHAN is the application for vehicle registration services and maintenance of the National Register of Motor Vehicles, and SARATHI

S.No	Term	Definition
		is the application for driving licence and learner licence services and maintenance of the National Register of Driving Licences.
30.	Vehicle Classification	Shall mean vehicle classification as per National Highways Fee (Determination of Rates and Collection) Rules 2008
31.	Violation	“ Violation ” refers to the passage of any vehicle through the VMECS system without FASTag or with Invalid FASTag, non-functional FASTag such as cases involving blacklisted FASTag, hotlisted FASTag etc. in accordance with the Programme Guidelines (PG) issued by IHMCL/NPCI, as amended from time to time.
32.	Working Days	Working days refer to the days of the week when businesses and organizations operate, and employees are expected to work. Typically, these days are Monday through Friday, excluding weekends (Saturday and Sunday) and public holidays as per GOI.

B. INTERPRETATION

All capitalized terms shall have meanings assigned in this RFP. Words importing singular shall include plural and vice versa. Headings are for convenience only and shall not affect interpretation.

ABBREVIATIONS

#	Abbreviations	Full Form
1.	ANPR	Automatic Number Plate Recognition
2.	BoQ	Bill of Quantities
3.	CCH	Central Clearing House
4.	CMOS	Complementary Metal Oxide Semiconductor
5.	DSRC	Dedicated Short Range Communication
6.	EPE	Eastern Peripheral Expressway
7.	FAT	Factory Acceptance Test
8.	FS	Functional Specification
9.	GoI	Govt. of India
10.	GNCTD	Government of National Capital Territory of Delhi
11.	GNSS	Global Navigation Satellite System
12.	IHMCL	Indian Highways Management Company Limited
13.	ITMS	Intelligent Traffic Management System
14.	ITS	Intelligent Transportation System
15.	VMECS	Vehicle Monitoring, Enforcement And Collection System(VMECS)
16.	MoRTH	Ministry of Road Transport and Highways
17.	NHAI	National Highways Authority of India
18.	NPCI	National Payment Corporation of India
19.	NIC	National Informatics Centre
20.	PG	Procedural Guidelines
21.	RBI	Reserve Bank of India
22.	RFID	Radio Frequency Identification

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#	Abbreviations	Full Form
23.	SAT	Site Acceptance Test
24.	SI	System Integrator
25.	STQC	Standardization Testing and Quality Certification
26.	TS	Technical Specifications
27.	UAT	User Acceptance Test
28.	VRN	Vehicle Registration Number
29.	VIN	Vehicle Identification Number (Chassis Number of the Vehicle)
30.	LHS & RHS	Left Hand Side(LHS) & Right Hand Side(RHS) road
31.	WIM	Weigh In Motion
32.	WPE	Western Peripheral Expressway
33.	HSWIM	High Speed Weigh In Motion

PART - I

INSTRUCTIONS TO BIDDERS

1. INTRODUCTION

1.1. BACKGROUND

- a) Indian Highways Management Company Limited (IHMCL), on behalf of the NHAI, invites online bids from eligible Acquirer Banks for Design, Development, Supply, Installation, Testing, Commissioning, Operation and Maintenance of an Integrated ANPR-FASTag based Vehicle Monitoring, Enforcement and Collection System (VMECS) at designated locations at the merging points of Eastern Peripheral Expressway (EPE) and Western Peripheral Expressway (WPE) towards Delhi-NCR, on a Fixed Per Transaction Fee Model.
- b) The Project shall include implementation of a comprehensive Integrated Vehicle Monitoring, Enforcement and Collection System (VMECS) and its Operation and Maintenance at designated locations at the merging points of Eastern Peripheral Expressway (EPE) and Western Peripheral Expressway (WPE) towards Delhi-NCR, on a Fixed Per Transaction Fee Model.

Brief particulars of the Project are as follows:

Region	RFP Ref No.	Name of Assignment	EMD	Implementation Period	Period
Delhi, National Capital Region (NCR)	RFP No. IHMCL/VMECS /2026	Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region	INR 30 Lakh	02 Months	02 Months (Design, Development and Implementation period) and 60 Months as O&M period (After successful completion/commissioning of the Vehicle Monitoring, Enforcement and Collection System(VMECS))

- c) The Successful Bidder shall be responsible for Implementation of ANPR-FASTag-based Vehicle Monitoring, Enforcement and Collection System for National Capital Territory Region in accordance with the provisions of a contract (the "Contract") to be entered into between the Bank and the Authority in the form provided by the Authority as part of the Bidding Documents pursuant hereto.
- d) The Agreement sets forth the detailed terms and conditions for award of the project to the Bank, including the scope of the Bank's services and obligations enclosed as part of this document.
- e) The Authority shall receive bids pursuant to this RFP in accordance with the terms set

forth in this RFP, and all bids shall be prepared and submitted in accordance with such terms on or before the bid due date specified in Clause-1.2 for submission of bids (the "BID Due Date").

1.2. KEY DATES

#	EVENT(S)	DATE (Unless otherwise notified separately)
1.	Invitation of RFP (NIT)	18/02/2026
2.	Last date of receiving queries	09/03/2026 Upto 05:00 PM IST
3.	Pre-Bid meeting at specified venue	13/03/2026 at 11:00 AM IST
4.	Last date/ time for online submission of bids (i.e., Bid due date)	27/03/2026 Upto 05:00 PM IST
4.	Opening of <i>Technical bids</i>	30/03/2026 at 05:30 PM IST
5.	Opening of Financial bids	To be intimated to shortlisted/ technically qualified bidders separately.
6.	Validity of Bids	120 Days

2. GENERAL TERMS OF BIDDING

2.1. TENDER FEE

The bidder should pay Tender Application Fee (non-refundable) INR 25,000/- (Rupees Twenty-Five Thousand only) inclusive of GST through online mode. The Bidder shall also upload the payment receipt in e-tender portal as proof of submission.

Details of designated bank account are as under:

#	Particulars	Details
1.	Name of Beneficiary	Indian Highways Management Company Limited
2.	Name of Bank	Canara Bank
3.	Account No.	8598201006217
4.	IFSC Code	CNRB0008598

2.2. BID SECURITY

- a) The bidder shall furnish as part of its Bid, a Bid Security amounting to Rs 30,00,000/- (Rs Thirty Lakhs Only). The Bid Security shall be in the form of Bank Guarantee (in format mentioned in this RFP) in favor of Indian Highways Management Company Limited, New Delhi from any of the following banks: -
 - i. State Bank of India or its subsidiaries,
 - ii. Any Indian Nationalised Bank
 - iii. Any Scheduled Commercial Bank approved by RBI having a net worth of not less than Rs. 500 Cr as per the latest Annual Report of the Bank. In the case of a Foreign Bank (issued by a branch in India), the net worth in respect of the Indian operations shall only be considered.
- b) Any bid not accompanied by a Bid Security and Tender Application Fee in the prescribed manner shall be summarily rejected.
- c) The Bid Security of the Successful bidder shall be retained till it has provided Performance Security under the Contract Agreement.
- d) The Bid Security of the unsuccessful bidders will be returned after signing of the Contract Agreement with Successful bidder.
- e) The EMD can also be submitted in the form of NEFT/ RTGS in the IHMCL bank account details provided in RFP Clause 2.1.

2.3. INVOCATION OF BID SECURITY

- a) The Bid Security shall be forfeited by IHMCL as damages payable to IHMCL for, *inter-alia*, time, cost and effort of IHMCL without prejudice to any other right or remedy that may be available to IHMCL under the provisions in the RFP and/or under the Contract Agreement, or otherwise, under the following circumstances:
- i. If a Bidder engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice; or
 - ii. If the Bid is withdrawn during the intervening period between the bid due date and the expiration of the Bid Validity; or
 - iii. If the bidder tries to influence the evaluation process; or
 - iv. If a Bidder having been notified Successful Bidder by IHMCL with the issuance of Letter of Award (LOA) during the bid validity period:
 - a) Fails or refuses to furnish the Performance Security, in accordance with the conditions of RFP; or
 - b) Fails or refuses to execute/sign the Contract within the stipulated time frame.
- b) No Bidder shall submit more than one Bid for the Project. **JV/Consortium are not allowed to bid.**
- c) Any condition or qualification or any other stipulation contained in the Bid shall render the Bid liable to rejection as a non-responsive Bid.
- d) The Bidding documents including this RFP and all attached documents, provided by the Authority are and shall remain or become the property of the Authority and are transmitted to the Bidders solely for the purpose of preparation and submission of a Bid in accordance herewith. Bidders are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Bid. The provisions of this Clause shall also apply mutatis mutandis to Bids and all other documents submitted by the Bidders, and the Authority will not return to the Bidders any Bid, document or any information provided along therewith.
- e) Notwithstanding anything to the contrary contained herein, if the Bid Due Date falls within three months of the closing of the latest financial year of a Bidder, it may ignore such financial year for the purposes of its Bid and furnish all its information and certification with reference to the 3 (three) years, preceding its latest financial year. For the avoidance of doubt, the financial year shall, for the purposes of this Bid hereunder, mean the accounting year followed by the Bidder during its normal business.

3. ELIGIBILITY AND PRE-QUALIFICATION CRITERIA

3.1. PRE-QUALIFICATION CRITERIA

The Bidders are required to fulfil the following Pre-Qualification Criteria:

SI no.	Eligibility Conditions/Conditions	Supporting Documents to be provided
PQ 1 –Entity	<p>The bidder must be either:</p> <p>i. A Scheduled Commercial Bank in the list of Agency Banks as notified by RBI as on Bid due date.</p> <p>OR,</p> <p>ii. A Payments Bank as notified by RBI as on Bid due date.</p> <p>OR,</p> <p>iii. A Scheduled Commercial Bank which is already doing Acquiring Services under NETC FASTag Programme as on Bid due date.</p>	<p>For Bidder</p> <p>For (i) and (ii):</p> <p>a. Power of Attorney as per Form T-3 of the RFP.</p> <p>b) Valid document supporting Agency Banks or Payments Bank as issued by RBI.</p> <p>c) Copy of valid Acquiring services certification by NPCI.</p> <p>OR,</p> <p>Undertaking on Acquirer Bank certification signed by Authorized Signatory of the Bidder on its letterhead as per Format provided at Form T-4 of the RFP.</p> <p>For (iii):</p> <p>a. Power of Attorney as per Form T-3 of the RFP.</p> <p>b) b) Copy of valid Acquiring services certification by NPCI.</p>
PQ- 2 – Eligibility of Sub-Contractor (SI)	<p>The bidder shall get the work done through a reputed Sub-Contractor (hereinafter also referred to as System Integrator, or SI), subject to the following conditions:</p> <p>i. The Sub-Contractor should be incorporated in India under the Companies Act, 1956/2013 or the Limited Liability Partnerships Act, 2008 or any equivalent foreign act.</p> <p>ii. If the Sub-Contractor/SI is any entity from a country which shares a land border with India,</p>	<p>For Bidder & Sub-Contractor</p> <p>a) MOU Agreement signed between Bidder and Sub-Contractor (SI) specifying roles and responsibilities of both parties to be included along with technical bid as per format provided in Form T-10.</p> <p>For Sub-Contractor/SI</p> <p>a) Copy of Certificate of Incorporation / Registration under Companies Act, 1956/2013 or any</p>

SI no.	Eligibility Conditions/Conditions	Supporting Documents to be provided
	<p>it will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the entity is registered with the Competent Authority.</p> <p>iii. The Bidder shall ensure that the Sub-Contractor/SI engaged by them is under an exclusive MOU with the acquirer bank and is not associated as Sub-Contractor/SI with any other Bidder participating in the same tender. For avoidance of doubt, if two or more bids is received having same Sub-Contractor/SI, all such bids shall be treated as non-responsive.</p> <p>iv. In case the Sub-Contractor is a firm incorporated abroad, it may associate with firm(s) incorporated in India for assistance in implementation, operations and other allied works required for Environment Charge Enforcement and Collection System.</p> <p>Note: The Sub-Contractor shall only help the Bidder in successful discharge of its obligations under the Contract. For avoidance of doubt, the Bidder shall be sole responsible for all the deliverables, SLAs, obligations and performance under the Contract.</p>	<p>equivalent foreign act, or as applicable.</p> <p>b) Power of Attorney/Letter of Authorization as per Form T-3 of the RFP.</p>
<p>PQ-3 - Undertaking</p>	<p>The <u>bidder and Sub-Contractor</u> (SI) should not be blacklisted or</p>	<p>For Bidder and Sub-Contractor /SI</p>

SI no.	Eligibility Conditions/Conditions	Supporting Documents to be provided
for non-blacklisting	debarred by any government department/ agency/PSU for material non-performance or contractual non-compliance in India or abroad as on bid due date.	a) Undertaking signed by Authorized Signatory of the Bidder on its letterhead. b) Undertaking signed by Authorized Signatory of the Sub-contractor on its letterhead.

Note: For any incomplete document provided by the Bidder, IHMCL reserves the right to disqualify the bidder as non-responsive, without asking for any clarification.

3.1.1. ELIGIBLE ORIGINAL EQUIPMENT MANUFACTURER (OEM) CRITERIA

- a) For purposes of this Clause, the term “goods” includes commodities, raw material, machinery, equipment, and industrial plants; and “related services” includes services such as insurance, transportation, supply, installation, integration, testing, commissioning, training, and initial maintenance.
- b) Bidders must comply with the Office Memorandum no. F. No. NH-35014/20/2020-H, Government of India, Ministry of Road Transport & Highways dated 04.08.2020, regarding Department of Expenditure (DoE), Ministry of Finance, Govt. of India O.M. No. 6/18/2019-PPD dated 23.07.2020, vide which Rule 144 of the general Financial Rules 2017 entitled “Fundamental principles of public buying’ has been amended by inserting sub-rule 144 (xi) in the General Financial Rules (GFRs), 2017. As per the new rule “Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority. The Bidder shall furnish the registration status of the supplier with Competent Authority (for the items / goods proposed to be procured from any country which shares a land border with India).
- c) OEM should not be rebranding & reselling products in India through importing/ trading from a country that shares a Land Border with India.
- d) Source code of the Software and Firmware being supplied for all the relevant equipment being supplied against this bid does not reside in any Country that shared a Land Border with India.
- e) OEM for each product or technology quoted should be in the business of that product or solution or technology for at least 3 years as on the date of release of the RFP.
- f) OEM for all active components should give a declaration that products or technology quoted are neither end of- sale nor end-of-life as on the date of installation and commissioning and are not end-of-support till the successful completion of O&M period of the project.

- g) Bidder's proposed OEM should not have been blacklisted by any State / Central Government Department or Central /State PSUs in India or abroad as on bid submission date.
- h) Each of the proposed OEM should have capability and infrastructure to provide 24x7x365 technical support in India.
- i) OEM of all equipment should be compliant as per provisions given in Schedule-C.
- j) All CCTV Cameras OEMs proposed under this project must fully comply with all applicable regulatory guidelines, standards, and certifications as prescribed by the Government of India. Documentary evidence of such compliance must be submitted prior to commencement of System Acceptance Testing (SAT). Failure to comply with this requirement shall constitute a material breach of the Contract, entitling the Purchaser to take appropriate remedial action, including but not limited to replacement of non-compliant cameras, termination of the Contract and forfeiture of performance security.

3.2. CONFLICT OF INTEREST

- a) A Bidder shall not have a conflict of interest that may affect the bidding process (the "Conflict of Interest"). Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, IHMCL shall invoke the bid securing declaration as mutually agreed genuine pre-estimated loss and damage likely to be suffered and/ or incurred by the IHMCL and not by way of penalty for, inter alia, the time, cost, and effort of IHMCL including consideration of such Bidder's Bids, without prejudice to any other right or remedy that may be available to IHMCL hereunder or otherwise.
- b) IHMCL requires that the successful bidder provides professional, objective, and impartial advice and always holds IHMCL's interest's paramount, avoiding conflicts with other assignments or its own interests. The successful bidder shall not accept or engage in any assignment that would conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of IHMCL.
- c) A Bidder shall be deemed to have a Conflict of Interest affecting the bidding process, if:
 - 1. A constituent ¹ of Bidder is also a constituent of another Bidder; or
 - 2. Such Bidder, its member or its associate receives or has received any direct or indirect subsidy or grant from any other Bidder, its member, or its Associate; or
 - 3. Such Bidder has the same legal representative for purposes of this Bid as any other Bidder; or
 - 4. Such Bidder, its member or its associates has a relationship with another Bidder, its member or its associates, directly or through common third parties, that puts them in a position to have access to each other's information about the bids, or if they share or access each other's information regarding the bids or to influence the bid of either or

¹ For this clause the word "constituent" shall include Promoter, Director, Shareholder, Partner, Agent, representative etc.

each of the other Bidder; or

5. There is a conflict among this, and other assignments of the Bidder (including its member, associates, personnel, agents and subordinates) and any subsidiaries or entities controlled by such Bidder or having common controlling shareholders or Key Managerial Personnel; or
 6. While providing services to IHMCL for this assignment, the Bidder shall not take up any assignment that by its nature will result in conflict with the present assignment; or
 7. A company/firm that has been engaged by the Authority to provide goods and/or works, and/or services for a project, and its associates, will be disqualified from providing consulting services for the same project and/or associated services. or
- d) Bidders should be deemed to be in a conflict-of-interest situation if it can be reasonably concluded that their position in a business or their personal interest could improperly influence their judgment in the exercise of their duties. The process for selection of Bidders should avoid both actual and perceived conflict of interest; or
- e) The normal way to identify conflicts of interest is through self-declaration by the Bidder. Where a conflict exists, which has not been declared, competing companies are likely to bring this to the notice of IHMCL. All conflicts must be declared as and when the Bidder becomes aware of them.

4. DISCLAIMER AND CLARIFICATION REGARDING RFP DOCUMENT

4.1. SITE VISIT

- a) Before the pre-bid meeting date, bidders are strongly advised and encouraged to conduct site visits, including visits to the site location(s), to assess the existing situation and gather information relevant to their bid proposal. The Authority strongly advises and encourages bidders to address any questions they may have about the site conditions through a pre-bid inquiry. Failing which, it shall be deemed that the bidder has fully satisfied itself about the site conditions as outlined in the Contract Agreement.
- b) The bidder shall not hold the Authority responsible or liable for any inconsistencies, inaccuracies, mismatches, or errors that may arise between the Contract Agreement and the actual site conditions.
- c) Bidders must adhere to all safety and security protocols during site visits. The Authority reserves the right to limit or restrict access to certain areas of the site, or to impose conditions on site visits as deemed necessary for safety, security, or operational reasons.
- d) The Authority makes no representations or warranties regarding the accuracy, completeness, or suitability of the information gathered by bidders during site visits, and bidders undertake their own risk assessment and due diligence based on such information.
- e) Bidders agree that their proposals are based on their independent analysis and expertise, and they shall not hold the Authority liable for any discrepancies, omissions, or inaccuracies in the information gathered by the bidders during site visits.
- f) Bidders agree to indemnify and hold harmless the Authority, its officers, employees, and agents against any claims, damages, liabilities, or expenses that may arise because of or in connection with their site visit activities.

4.2. PRE-BID MEETING

- a) A prospective Bidder requiring any clarification regarding the RFP may notify IHMCL in writing or e-mail at IHMCL's address indicated in the invitation to Bid. IHMCL will respond to any request for clarification which is received before the pre-bid meeting.
- b) The Bidder or his authorized representative is invited to attend a pre-bid meeting which will take Place at IHMCL, Asia Bhawan, Sector-9, Dwarka, New Delhi-110077, as mentioned in the RFP as "KEY DATES" in Part-I Instructions to Bidders of the RFP.
- c) The Bidder who is interested in attaining the pre-bid meeting should confirm IHMCL about the participation (maximum three authorised persons) one day prior to the schedule. The confirmation can be sent to tenders@ihmcl.com.
- d) The purpose of the meeting will be to clarify issues and to answer questions on any matter pertaining to this RFP document.
- e) All Bidders are requested to go through the RFP document carefully and submit any queries/ clarifications addressed to the COO, IHMCL in the format prescribed in Part III. If

no query is raised, then it shall be assumed that such a Bidder has fully satisfied itself regarding the sufficiency of information contained in the RFP. The Bidder is requested to submit any questions / queries in writing or by email in editable format to tenders@ihmcl.com to reach at IHMCL well before the scheduled meeting.

- f) Clarifications to the queries will be hosted on IHMCL's website/ e-tender portal only.
- g) Any modification in the RFP document which may become necessary because of the deliberations in the pre-Bid meeting shall be made by IHMCL separately through issue of an Addendum/ Amendment and the same will be hosted on IHMCL's website/ e-tender portal.

5. ACCESSING BID DOCUMENTS, PREPARATION AND SUBMISSION OF BID

Website for accessing RFP is <https://etenders.gov.in>. The Bidders shall submit the proposal strictly as per criteria laid down in the RFP. The tender process timelines are mentioned in the RFP as "Key Dates" in Part-I Instructions to Bidders of the RFP. The same can also be viewed / downloaded from IHMCL e-tender portal.

5.1. PREPARATION & SUBMISSION OF BIDS

- a) Detailed RFP may be downloaded from the e-tender portal and bid shall be submitted online following the instruction appearing on the screen.
- b) The scanned copies of the following documents shall be submitted as part of a bid to IHMCL before the prescribed date & time for submission of Bids.
- c) Tender Application Fee in the manner prescribed.
- d) Original Power of Attorney in Favor of Authorized Signatory in the Format prescribed in this document.
- e) Signed copy of MOU between Acquirer Bank and Sub-contractor.
- f) The Technical and Financial bid should be submitted online separately only in the prescribed format given on the e-tender portal. No other mode of submission is allowed.
- g) No physical document shall be accepted unless and until the same is specifically stated in the RFP or it is a legal requirement.
- h) All pages of the RFP and all the subsequent corrigendum shall be signed by authorised signatory and stamped confirming that bidder is complying to all the functional and technical terms and conditions of the RFP (and subsequent corrigendum).

5.2. BID VALIDITY

The bid should remain **valid for a period of 120 calendar days from the bid due date**. IHMCL will make its best efforts to complete the evaluation process and work award within the bid validity period. Under exceptional circumstances, prior to the expiration of the bid validity, IHMCL may request bidder to extend the bid validity for a specified additional

period. Such request by IHMCL and replies / responses from bidders shall be in writing. The bidder(s) not agreeing to such an extension will be allowed to withdraw their bids without invocation of their bid securing declaration.

5.3. BID COMPOSITION

The Bid shall comprise the following:

(A) PART 1: Technical Bid

To be uploaded on E-tender portal only. Physical submission of bids is not allowed.

- a) Tender Fee (proof of deposition in given account number)
- b) Bid Security (Scan copy of Bank Guarantee).
- c) Scanned copy of Power of Attorney of bidder and Sub-Contractor in prescribed format.
- d) Technical Bid comprising of various formats prescribed in RFP (T1 to T14 as applicable).
- e) Stipulated documentary evidence attested by the authorized signatory in support of their claim for fulfilling the prescribed eligibility criteria and an undertaking on the bidder's letter heads to the fairness of these documents in support of their claim while submitting the Bids.
- f) Undertaking that the bidder and sub-contractor should not have been blacklisted or debarred by any government department/ agency/PSU for material non-performance or contractual non-compliance in India or abroad as on bid due date.
- g) Self-declaration concerning any 'Conflict of Interest' prescribed under Para -3.2 of eligibility criteria.
- h) All credentials of sub-contractor (SI) as per PQ criteria **countersigned by bidder** shall be part of technical bid.
- i) Other documents:
 - a. Valid Certificate from NPCI for acquiring services or Undertaking as per format T4.
 - b. MoU between Acquirer Bank and Sub-Contractor.
 - c. Copy of Certificate of Incorporation of Company or LLP.
 - d. Signed copy of Integrity Pact in the prescribed format; and
Any other document providing additional information in respect of technical / financial strength as well as technical experience etc.
- j) Technical Proposal
 - a. The Bidder shall describe the proposed works in sufficient detail in his Technical Proposal as per format given in T-6 to enable the IHMCL to evaluate the technical adequacy of the proposed system. Authority may ask clarification, and if not found satisfactory response, the technical bid shall be declared non-responsive.
 - b. Detailed Project Plan
 - c. Risk and mitigation Plan

(B) PART 2: Financial Bid

(In the prescribed format on E-Tender portal)

- a) Financial bid shall be submitted online on e-tender portal on the prescribed format which may be downloaded well before the bid due date from e-tender portal.
- b) The bid must encompass all costs/charges/expenditure payable in complete adherence/conformity/compliance to the Scope of Work, including all necessary works, ancillary or incidental in nature, regardless of whether they are explicitly stated or not, as well as other terms indicated in the RFP document. No additional/further payments shall be made in this regard.
- c) The bid should include all statutory taxes/ levies / surcharge on tax etc., as applicable. Prices quoted by the bidder shall be inclusive of Taxes/GST, as applicable.
- d) Bidder should note that Income tax payable by the Bidder is not reimbursable by IHMCL.

5.4. COST OF BIDDING

The Bidder shall be solely responsible for all the costs associated with the preparation and submission of their Bids including subsequent negotiation, visits to IHMCL, project site etc. IHMCL shall not be responsible in any way liable for such costs, regardless of the conduct or outcome of the bidding process.

5.5. LANGUAGE OF THE BIDS

The Bid and all communications in relation to or concerning the RFP shall be in **English language**. No supporting document or printed literature shall be submitted with the Bid unless specifically asked for and in case any of the documents are in another language, it must be accompanied by an accurate translation of the relevant passages in English, in which case, for all purposes of interpretations of the Bid, the original documents attached with the bid or the information incorporated in the bid shall be final and binding.

5.6. MODIFICATION /SUBSTITUTION/ WITHDRAWAL OF BIDS

1. The Bidder may modify, substitute, or withdraw its e-bid after submission prior to the Bid Due Date. No Bid shall be modified, substituted, or withdrawn by the Bidder on or after the Bid Due Date.
2. In case, if the bid is withdrawn by bidder after due date, IHMCL shall forfeit the EMD submitted by bidder.

5.7. OPENING & EVALUATION OF BIDS

1. Opening and evaluation of bids will be done through online process.
2. The bids will be opened online on the due date and time prescribed in the RFP document in the presence of the bidders who choose to attend. The Authority will subsequently examine and evaluate the bids in accordance with the provisions set out.
3. The Authority shall determine whether each Bid is responsive to the requirements of this RFP.
4. 'Financial Bid' of non-responsive bidders shall not be opened.
5. To assist in the examination, evaluation, and comparison of Bids, IHMCL may, at its discretion, ask any Bidder for clarification of its Bid. The request for clarification and the response shall be in writing or by e-mail, but no change in the price or substance of the Bid shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by IHMCL in the evaluation of the Bids.
6. Except in case any clarification is asked by IHMCL, no Bidder shall contact IHMCL on any matter relating to its Bid from the time of the Bid opening to the time the Contract is awarded. If any Bidder wishes to bring additional information to the notice of IHMCL, it should do so in writing at the address prescribed in the Notice Inviting Tender
7. All information and discussions related to the bid evaluation process shall be treated as confidential. Bidders and any other involved parties must maintain strict confidentiality and refrain from disclosing any details regarding the evaluation process or deliberations.
8. The Evaluation Committee's deliberations and discussions on bid proposals, shall be considered confidential and privileged information. The Committee shall refrain from discussing or sharing details of their deliberations with bidders or any unauthorized individuals.

6. BID EVALUATION CRITERIA AND SELECTION PROCEDURE

6.1. EVALUATION PROCESS

1. The bids shall be opened online by the Evaluation Committee on the date and time prescribed. Prior to evaluation of the bids, IHMCL shall determine as to whether each bid is responsive to the requirements of this RFP document. A bid will be declared non-responsive in case:
 - a) If a bidder does not fulfil pre-qualification criteria mentioned in the RFP including the pre-qualification criteria of sub-contractor (SI).
 - b) If a bidder submits more than one bid against this RFP.
 - c) Bid is submitted without Tender Fee.
 - d) Bid is submitted without Bid Security.
 - e) If the Authorized Signatory holding Power of Attorney (POA)/Letter of Authorization or the person executing/delegating such POA/ Letter of Authorization

and Digital Signatory for uploading the bid on e-tender portal are not the same.

- f) If a bidder submits a conditional bid or makes changes in the terms and conditions given in this RFP document.
 - g) Failure to comply with all the requirements of RFP document by a bidder.
 - h) If the bid is not submitted in the formats prescribed in the RFP document.
 - i) If any requisite document/certificate is not in the prescribed format the same shall not be considered while evaluating the bids and the same may lead to bid being declared as non-responsive.
 - j) A bid valid for a period shorter than prescribed in the RFP document.
 - k) No commercial information shall be part of the technical proposal.
 - l) If two or more bids is received having same Sub-Contractor, all such bids shall be treated as non-responsive.
2. A two-stage procedure shall be adopted for evaluation of the bids. The stages of bid evaluation are mentioned as below:

(i) First Stage: Pre-Qualification/ Eligibility Stage:

- a) The Evaluation Committee shall carry out initial screening of technical bids by examining the statement of qualification, furnished by the Bidder in support of their fulfilment of eligibility against the criteria prescribed in this RFP.
- b) The Evaluation Committee may, at its discretion, call for additional information from the bidder(s) through email/fax/telephone/meeting or any other mode of communication. Such information must be supplied within the set-out time frame as provided by the Evaluation Committee; otherwise, Evaluation Committee shall make its own reasonable assumptions at the total risk and cost of the bidders and the proposal is liable to be rejected. Seeking clarification cannot be treated as acceptance of the proposal. For verification of information submitted by the bidders, the committee may visit the bidder's offices at its own cost. The bidders shall provide all the necessary documents, samples, and reference information as desired by the Committee. The bidders shall also assist the committee in obtaining relevant information from their references.

The bidder shall have to submit all the required documents as per the various formats provided in the Appendices. These documents will be scrutinized in this phase of evaluation. Those bidders who do not fulfil the terms and conditions of Eligibility Criteria as specified in this tender will not be eligible for further evaluation i.e. Second Stage: Financial Bid Evaluation.

- c) The shortfall information/ documents shall be sought only in case of historical documents which pre-existed at the time of the bid opening, and which have not undergone change since then.

(ii) Second Stage: Financial Bid Evaluation

- a) The Financial Bids of technically qualified bidders as declared in First Stage will be opened on the prescribed date on e-tender portal.
- b) The Financial Bid Evaluation will be based on the lowest Fixed Per Transaction Cost demanded by the bidder in the Financial Bid Form F-1.
- c) If two bidders have the same lowest Fixed Per Transaction Cost (upto 2 values of decimal places as per Arithmetic Convention defined in clause-1.2.4 of General Conditions of Contract), preference may be given to the bidder who is providing Acquiring Services at more number of NH fee plazas as on bid due date.
- d) At any point of tender process, IHMCL reserves the right to cancel the bid, without providing any reasons thereof.

6.2. DELETED.

6.3. SELECTION AND AWARD CRITERIA

- a) IHMCL will award the Contract to the bidder whose bid has been determined to be responsive as per criteria defined above and who has quoted the lowest Fixed Per Transaction Cost in the Financial Bid form F-1.
- b) The Successful bidder shall be intimated by IHMCL through a Letter of Award (LoA). Upon issue of the LoA the successful bidder shall be required to furnish the Letter of Acceptance and Performance Security and other guarantees as prescribed in the RFP document. IHMCL shall have the right to get bank guarantees verified from the respective issuing bank. Upon receipt of verification, the successful bidder shall be invited to sign the contract with IHMCL. The format of Contract Agreement is prescribed in the RFP Document.
- c) IHMCL reserves the right to reject any bid which is non-responsive and no request for alteration, modification, substitution, or withdrawal shall be entertained by IHMCL in respect of such bids.

6.4. WARRANTY AND GUARANTEE

- a) Successful bidder shall be fully responsible for the warranty of all items throughout Contract duration which shall be deployed by them. Successful bidder shall ensure to repair/replace all faults of equipment/Sub-equipment/consumables to meet the SLA parameters.
- b) Bidder is solely responsible for functioning and maintenance of Vehicle Monitoring, Enforcement and Collection System equipment/components with five years of warranty.

6.5. PERFORMANCE SECURITY

- a) The Successful bidder shall furnish a Performance Security cumulative total of Rs 10,00,00,000/- (Rs Ten Crore only) for all tendered locations for a period of 6 years from the Date of LOA within 10 days of issuance of LOA in following instruments:
- i. a crossed account payee demand draft/pay order amounting to Rs. 5,00,00,000/- (Rupees Five Crore Only) (an amount equal to 50% of the total PBG value)

and

 - ii. a bank guarantee amounting to Rs. 5,00,00,000/- (Rupees Five Crore Only) (an amount equal to 50% of the total PBG value) as per the format prescribed by IHMCL for a period of 6 years from the Date of LOA
- b) The Bidder shall have the liberty to submit a crossed account payee demand draft/pay order issued by a Scheduled Bank in India in lieu of the bank guarantee.
- ϵ) Deleted
- d) In case the contract is extended, the bidder shall extend the validity of PBG appropriately such that it remains valid until one year beyond completion of the contract.
- e) The PBG from the following scheduled banks shall only be accepted:
- i. State Bank of India or its subsidiaries.
 - ii. Any Indian Nationalized Bank.
 - iii. Any Scheduled Commercial Bank approved by RBI having a net worth of not less than 500 Crores as per the latest Annual Report of the Bank. In the case of a Foreign Bank (issued by the branch of India) the net worth in respect of the Indian operations shall only be considered.

6.6. MISCELLANEOUS

1. Resolution of Disputes

- a) Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to the Contract (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the "Dispute") shall, in the first instance, be attempted to be resolved amicably in accordance with the conciliation procedure.
- b) The Parties agree to use their best efforts for resolving all Disputes arising under or in respect of the Contract promptly, equitably and in good faith, and further agree to provide each other with reasonable access during normal business hours to all non-privileged records, information and data pertaining to any Dispute.
- c) **Mediation:** In the event of any Dispute between the Parties, either Party may call upon the Chairman in case of IHMCL or his nominee and the Managing Director/ /CEO/Director in case of the Service Provider to mediate in arriving at an amicable settlement thereof. If after expiry of 30 days of receipt of the documents in relation to

the Dispute or such extended period as the Parties may agree in writing, the Dispute remains unresolved, the Parties shall attempt to resolve the dispute through conciliation and/or Arbitration under the Arbitration and Conciliation Act, 1996.

- d) **Conciliation:** The Parties shall attempt to select one of the experts from the list of empaneled arbitrators of the Society for Affordable Redressal of Disputes (“SAROD”) as the Conciliator to mediate and assist the Parties in arriving at an amicable settlement thereof. If the Parties fail to agree on nominating a conciliator within 15 (fifteen) days or the Dispute is not resolved as evidenced by the signing of written terms of settlement within 60 (sixty) days of the notice in writing or such longer period as may be mutually agreed by the Parties, either Party may refer the Dispute to arbitration.

e) Arbitration

- a. Any Dispute which is not resolved amicably by conciliation, shall be finally settled by arbitration as set forth below:
 - b. The Dispute shall be referred to Society For Affordable Redressal of Disputes (SAROD). The dispute shall be dealt with in terms of Rules of SAROD. The detailed procedure for conducting Arbitration shall be governed by the Rules of SAROD and provisions of Arbitration & Conciliation Act, 1996, as amended from time to time.
 - c. The seat of Arbitration shall be New Delhi and the language for all documents and communications between the parties shall be English.
 - d. The expenses incurred by each party in connection with the preparation, presentation, etc., of arbitral proceedings shall be borne by each party itself.
 - e. The arbitrators shall make a reasoned award (the “Award”).
 - f. The Service Provider and IHMCL agree that an Award may be enforced against the Service Provider and/or IHMCL and their respective assets wherever situated.
 - g. This Agreement and the rights and obligations of the Parties shall remain in full force and effect, pending any proceedings hereunder. Further, the Parties unconditionally acknowledge and agree that notwithstanding any Dispute between them, each Party shall proceed with the performance of its respective obligations, pending resolution of Dispute.
2. The bidding process shall be governed by, and construed in accordance with, the laws of India and courts at New Delhi shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the bidding process.
 3. IHMCL, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, too.
 - (i) Suspend and/or cancel the bidding process and/or amend and/or supplement the bidding Process or modify the dates or other terms and conditions relating there to.
 - (ii) Consult with any bidder to receive clarification or further information.
 - (iii) Retain any information and/ or evidence submitted to IHMCL by, on behalf of, and/ or in relation to any bidder; and/or.

- (iv) Independently verify, disqualify, reject and/ or accept all submissions or other information and/or evidence submitted by or on behalf of any bidder.
4. IHMCL is not bound to reply/ respond to any representation/ letter or request for Change in Scope of work, eligibility criteria or any relaxation in respect of the tender conditions.
 5. It shall be deemed that by submitting the Bid, the bidder agrees and releases IHMCL, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/or performance of any obligations hereunder, pursuant hereto and/or in connection with the bidding process and waives, to the fullest extent permitted by Applicable Law, any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or in future.
 6. Verification and Dis-qualification: IHMCL reserves the right to verify all statements, information, and documents submitted by the bidder in response to this RFP, and the bidders shall, when so required by IHMCL, make available all such information, evidence, and documents as may be necessary for such verification. Any such verification or lack of such verification, by IHMCL shall not relieve the bidders of its obligations or liabilities hereunder, nor will it affect any rights of IHMCL thereunder.
 7. IHMCL reserves the right to reject any Bid and/ or declare it non-responsive, if:
 - i. At any time, a material misrepresentation is made or uncovered, or
 - ii. The bidder does not provide, within the time specified by IHMCL, the supplemental information sought by IHMCL for evaluation of the Bid.
 8. Such misrepresentation/ improper response shall lead to the disqualification of the bidder. If such disqualification/ rejection occurs after the bids have been opened and the lowest bidder gets disqualified/ rejected, then IHMCL reserves the right to take any such measure as may be deemed fit in the sole discretion of IHMCL, including annulment of the Bidding process.

6.7. AMENDMENT TO RFP

- a) Any modification in the RFP document shall be made by IHMCL separately through issue of an Addendum/ Amendment.
- b) At any time prior to the bid due date, IHMCL may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the conditions specified in the RFP document by an amendment. Any amendment/ addendum thus issued shall be part of the RFP document and shall be communicated by hosting the same on IHMCL website only and should be taken into consideration by the prospective bidders while preparing their bids.
- c) To give prospective bidders reasonable time to take the amendment into account when preparing their bid, IHMCL may, at its discretion, extend the bid due date.
- d) The bidder must read all the instructions in the RFP and abide by the same accordingly.

6.8. INDEMNITY

The bidder shall, subject to the provisions of the Contract, indemnify IHMCL for any loss or damage caused on account of any act/ omission attributable to the bidder.

6.9. PROPRIETARY DATA

All documents and other information provided by IHMCL or submitted by a bidder to IHMCL shall remain or become the property of IHMCL. Bidders are to treat all information as strictly confidential. IHMCL will not return any bid, or any information related thereto. All information collected, analyzed, processed, or in whatever manner provided by the successful bidder to IHMCL in relation to the services shall be the property of IHMCL.

6.10. CORRUPT OR FRAUDULENT PRACTICES

IHMCL requires bidder to observe the highest standard of ethics during the procurement and execution of the Contract. In pursuance of this policy, IHMCL:

- a. Defines, for the purposes of this provision, the terms set forth below as follows:
 1. "Corrupt Practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in Contract execution.
 2. "Fraudulent Practice" means a misrepresentation of facts to influence a procurement process or the execution of a contract to the detriment of IHMCL and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificially non-competitive levels and to deprive IHMCL of the benefits of free and open competition.
 3. "Coercive Practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any person or property to influence any person's participation or action in the bidding process.
 4. "Undesirable Practice" means (i) Establishing contact with any person connected with or employed or engaged by IHMCL with the objective of canvassing, lobbying or in any manner influencing, or attempting to influence the bidding process; or (ii) having a Conflict of Interest; and
 5. "Restrictive Practice" means forming a cartel or arriving at any understanding or arrangement among bidders with the objective of restricting or manipulating a full and fair competition in the bidding process.
- b. IHMCL will reject a bid if it determines that the bidder has engaged in Corrupt Practice or Fraudulent Practice or Coercive Practice or Undesirable Practice or Restrictive Practice in competing for the Contract in question.
- c. IHMCL will blacklist/ declare a bidder ineligible, either indefinitely or for a stated period, to be awarded any contract by IHMCL if it at any time determines that the bidder has engaged in Corrupt Practice/ Fraudulent Practice/Coercive Practice/Undesirable

Practice/Restrictive Practice in competing for or in executing IHMCL Contract.

6.11. INTEGRITY PACT

Bidder shall comply with the provisions of the Office Memorandum No. 13030/09/2008-Vig. Dated 28.01.2013 issued by NHAI (Copy enclosed) at **Appendix-I**.

a) **Appendix-I**

Appendix -1 attached below.



भारतीय राष्ट्रीय राजमार्ग प्राधिकरण

(सड़क परिवहन और राजमार्ग विभाग)

National Highways Authority of India

(Ministry of Road Transport and Highways)

पी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली-110075

G-5 & 6, Sector-10, Dwarka, New Delhi-110075

दूरभाष (Phone) 91-11-25074100/25074200

फैक्स (Fax) 91-11-25003507 / 25003514

No.13019/8/2009-Vig.

Dated : 28th January, 2013

Office Memorandum

Sub: Adoption of Integrity Pact (IP) for NHAI Projects-reg.

In suppression of OM No. NHAI/CMC/IP/IEM/2011-12 dated 13.08.2012 and OM of NHAI/CMC/IP/IEM/2011-12 dated 14.08.2012, it has been decided to implement the concept of Integrity Pact in NHAI projects. The Integrity Pact (IP) envisages an agreement between the prospective bidder and the buyers committing the persons/officials of both the parties, not to exercise any corrupt influence on any aspect of the contract. The IP also envisages empanelment of Independent External Monitors (IEM). The IEM may review independently and objectively whether and to what extent parties have complied with their obligations under the pact.

2. NHAI is going to appoint IEM shortly for implementation of the IP in NHAI. MoRT&H vide its letter no. C-13019/8/2009-Vig. dated 18.11.2011 has approved applicability of adoption of IP in NHAI works as mentioned below:

- (i) Civil Works above Rs.100.00 crore
- (ii) Services such as consultancy, engineering etc. above Rs.5.00 crore

3. In this connection, all the officers of NHAI are hereby requested to implement and follow the concept of IP and adopt the same in all future projects of NHAI as scrupulously in works included in para.2 above as per Model Agreements (copy enclosed) for each category. This Model Agreement would be provided to the bidders at NIT/ Pre-bid /Technical bid stage, whichever applicable, with instruction to submit the same after signing it. Contractor/ concessionaire / consultant / bidder would be required to submit this duly signed agreement (signed by the same signatory competent/authorized to sign the relevant contract agreement) along with their Technical Bid/Tender Documents. The representative authorized to sign contract agreement, on behalf of NHAI, would sign the same while signing the contract so that this may be made a part of the contract document and binding for both the parties signing the contract.

4. It is clarified that IP should cover all phases of the contract, i.e. from the stage of Notice Inviting Tender (NIT) / pre-bid stage till the conclusion of the contract, i.e. the final payment or the duration of warranty / guarantee / defect liability / concession period, whichever applicable. The IEM would be, invariably, cited in the NIT. Further, information relating to tender in progress and under finalization would need to be shared with IEM on monthly basis.

contd.2.

5. After implementation of Integrity Pact, NHAI has to send progress/status in the implementation of IP enabling CVC to include the same in their annual report as prescribed in the CVC circular no. 10/5/09 dated 18.05.2009 and subsequent circular no.31/08/10 dated 13.08.2010 (copies enclosed). Further, an internal assessment of the impact of IP shall be carried out periodically by the CVO and reported to the CVC through their report or special report, wherever necessary. In view of this, status of implementation of IP would be reported by all divisions to CVO on monthly basis.

6. All the Divisions engaged in purchase/procurement shall ensure strict compliance of this.

This issues with the approval of Chairman, NHAI.

- Encl: (1) Model Agreement for category (i) works
(2) Model Agreement for category (ii) works
(3) CVC's Circular no. 10/5/09 dt. 18.05.09
(4) CVC's Circular no.31/08/10 dt.13.08.10


(B.N.Sahay)
General Manager (CMC)

To

1. All PIUs/CMUs
2. All ROs
3. All CGMs at HQ
4. All GMs at HQ
5. CVO, NHAI

Copy for information to:

1. PS to Chairman
2. All PS to Members

b) INTEGRITY PACT FORMAT

(To be executed on plain paper and submitted along with Technical Bid. To be signed by the bidder and same signatory competent/ authorized to sign the relevant contract on behalf of IHMCL)

RFP No. <.....> dated <.....>

This Integrity Pact is made at _____ on this _____ day of ___202___.
between

Indian Highways Management Company Limited (IHMCL), incorporated under Companies Act 1956, having its office at 2nd Floor, Asia Bhawan, Sector-09, Dwarka, New Delhi, 110077 hereinafter referred to as “**The Principal**”, which expression shall unless repugnant to the meaning or contract thereof include its successors and permitted assigns.

And

_____, hereinafter referred to as “**The Bidder**” and which expression shall unless repugnant to be meaning or context thereof include its successors and permitted assigns.

Preamble

Whereas, the Principal intends to award, under laid down organizational procedure’s contract/s for The principal values full Compliance with all relevant laws of the land, rules of land, regulations, economic use of resources and of fairness/ transparency in its relations with its Bidder(s)/ Bidder(s).

And whereas to meet the purpose aforesaid, both the parties have agreed to enter this Integrity Pact (hereafter referred to as Integrity Pact) the terms and conditions of which shall also be read as integral part and parcel of the Tender documents and contract between the parties. Now, therefore, in consideration of mutual covenants stipulated in this pact, the parties hereby agree as follows and this pact witnessed as under:

Article 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 tender for or the execution of a contract, demand, take a promise for or except for self or third person any material or immaterial benefit which the person is not legally entitled to.
 - (b) The principal will during the tender process treat all bidder(s) with equity and reason. The principal will in particular before and during the tender 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 tender process or the contract execution.

- (c) The principal will exclude all known prejudiced persons from the process, whose conduct in the past has been of biased nature.
- (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 any other Statutory Acts 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 as per its internal laid down Rules/ Regulations.

Article 2- Commitments of the Bidder(s)

The bidder(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

- (a) The bidder(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender 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 of any kind whatsoever during the tender process or during the execution of the contract.
- (b) The bidder(s) will not enter with other bidders into any undisclosed agreement or understanding, whether formal or informal. This applies to prices, specifications, certifications, subsidiary contracts, submission or non-submission or bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- (c) The bidder(s)/ will not commit any offence under the relevant IPC/ PC Act and other Statutory Acts; further the bidder(s)/ Contractor(s) will not use improperly, for purposes of completion 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) of foreign origin shall disclose the name and address of the Agents/ representatives in India, if any. Similarly, the Bidder(s) of Indian Nationality shall furnish the name and address of the foreign principle, if any.
- (e) The bidder(s) will, when presenting his bid, disclose 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. He shall also disclose the details of services agreed upon for such payments.
- (f) The bidder(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- (g) The bidder(s) will not bring any outside influence through any Govt. bodies/ quarters directly or indirectly on the bidding process in furtherance of his bid.

Article 3- Disqualification from tender process and exclusion from future contracts

- a) If the bidder(s) before award or during execution has committed a transgression through a violation of any provision of Article-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) from the tender process.
- b) If the bidder(s) have committed a transgression through a violation of Article-2 such as to put his reliability or credibility into question, the principal shall be entitled to exclude including blacklist and put on holiday the bidder(s) for any future tender/ contract award process. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the principal taking into consideration the full facts and circumstances of each case particularly considering the number of transgressions, the position of the transgressors within the company hierarchy of the bidder(s) and the amount of the damage. The exclusion will be imposed for a minimum of 1 year.
- c) A transgression is considered to have occurred if the principal after due consideration of the available evidence concludes that "On the basis of facts available there are no material doubts".
- d) The bidder(s) with its free consent and without any influence agrees and undertakes to respect and uphold the principal's absolute rights to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.
- e) The decision of the principal to the effect that a breach of the provisions of this Integrity Pact has been committed by the bidder shall be final and binding on the bidder.
- f) On concurrence of any sanctions/ disqualification etc. arising out from violation of integrity pact the Bidder shall not be entitled for any compensation on this account.
- g) Subject to full satisfaction of the principal, the exclusion of the bidder could be revoked by the principal if the bidder can prove that he has restored/ recouped the damage caused by him and has installed a suitable corruption prevention system in his organization.

Article 4- Compensation for Damages

- a) If the Principal has disqualified the bidder(s) from the tender process prior to the award according to Article 3, the principal shall be entitled to invoke the bid securing declaration apart from any other legal right that may have accrued to the principal.
- b) In addition to 1 above, the principal shall be entitled to take recourse to the relevant provisions of the contract related to Termination of Contract. In such case, the principal shall be entitled to forfeit the Performance Bank Guarantee of the bidder and/or demand and recover liquidated and all damages as per the provisions of the Contract Agreement against Termination.

Article 5 - Previous Transgressions

- a) The bidder declares that no previous transgressions occurred in the last 3 years immediately before signing of this Integrity Pact with any other Company in any country conforming to the anti-corruption/ Transparency International (TI) approach or with any other Public Sector Enterprise/ Undertaking in India or any Government Department in India that could justify his exclusion from the tender process.
- b) If the bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action for his exclusion can be taken as mentioned under Article-3 above for transgressions of Article-2 and shall be liable for compensation for damages as per Article-4 above.

Article 6 - Equal treatment of all Bids(s)

- a) The Bidder(s) undertake(s) to demand from all sub- contractor(s) a commitment in conformity with this Integrity Pact, and to submit it to the principal before contract signing.
- b) The principal will enter into agreements with identical conditions as this one with all Bidder(s).

The principal will disqualify from the tender process all Bidders who do not sign this Pact or violate its provisions.

Article 7 - Criminal charges against violating Bidder (s)

If the Principal obtains knowledge of conduct of a Bidder or Sub-contractor (SI), or of an employee or a representative or an associate of a Bidder or Sub-contractor (SI), which constitutes corruption, or if the principal has substantive suspicion in this regard, the principal will inform the same to the Chief Vigilance Officer.

Article 8 - Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Bidder 12 months after his Defect Liability Period is over or 12 months after his last payment under the contract whichever is later and for all other *unsuccessful* Bidders 6 months after the Contract has been awarded.

If any claim is made/ lodged 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 Chairman of IHMCL.

Article 9 - Other Provisions

- a) This Pact is subject to Indian Law Place of performance and jurisdiction is the Registered Office of the Principal i.e., New Delhi.
- b) Changes and supplements as well as termination notices need to be made in writing.
- c) 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.

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- d) Any disputes/ differences arising between the parties about term of this Pact, any action taken by the principal in accordance with this Pact or any relation thereof shall not be subject to any Arbitration.
- e) The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

In witness whereof the parties have signed and executed this Pact at the place and date first as mentioned in the presence of following witnesses:

[For & On behalf of the (Principal)]
(Office Seal)

[For & On behalf of the Bidder]

Place:.....

Date: _____

Witness 1:

(Name & Address) _____

Witness 2:

(Name & Address) _____

PART-II

FORMAT FOR BID SUBMISSION

Form T-1 Technical Bid Covering Letter

(To be prepared on letterhead of the Bidder)

To,
Chief Operating Officer,
Indian Highways Management Company Limited,
2nd Floor, Asia Bhawan, Sector-09, Dwarka,
New Delhi – 110077

Sub.: Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region

Ref: RFP No..... on above subject.

Dear Sir,

1. I/We, the undersigned, have carefully examined the contents of the above referred RFP document including amendments/addendums (if any) thereof and we undertake to fully comply and abide by the terms and conditions specified therein and hereby submit our Bid for the aforesaid service. Our bid for the subject RFP is unconditional and unqualified.
2. I/We hereby undertake that we are a [Scheduled Bank included in the list of Agency Banks / Payments Bank] duly notified by the Reserve Bank of India as on the bid due date.
3. I/We offer to execute the work in accordance with the Scope of work and the Conditions of Contract of this RFP both explicit and implied.
4. I/We undertake that, in competing for (and, if the award is made to us), for executing the above contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".
5. I/We understand that:
 - i. This bid, if found incomplete in any respect and/ or if found with conditional compliance or not accompanied by the requisite Bid Security, shall be summarily rejected.
 - ii. If at any time, any averments made or information furnished as part of this bid is found incorrect, then the bid will be rejected and the contract if awarded based on such information shall be cancelled.
 - iii. IHMCL is not bound to accept any/ all Bid(s) it will receive.
 - iv. Until a contract is executed, this bids together with RFP Document as well as the subsequent corrigendum, notification of the Letter of Award issued by IHMCL shall constitute a binding Contract between us.
6. I/We declare that:

- i. I/we have no proceeding for insolvency/bankruptcy in NCLT / Court as on Bid Due Date.
 - ii. I/We have not been blacklisted/ *declared ineligible* by IHMCL or National Highways Authority of India (NHAI) or Ministry of Road Transport & Highways, Government of India or any other agency as on Bid Due date. I/We also confirm that I/We have not been *declared as non- performing or debarred* by IHMCL or NHAI or Ministry of Road Transport & Highways, Government of India as on bid due date.
 - iii. *I/We haven't been blacklisted* by a Central/ State Government Institution/ Public Sector Undertaking/ Autonomous body and there has been *no litigation* with any Government Department/ PSU/ Autonomous body on account of similar services as on Bid Due Date.
 - iv. I/We have *not* directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in the Contract Agreement, in respect of any tender or request for proposal issued by or any Contract entered into with IHMCL or any other public sector enterprise or any government, Central or State; and I/We hereby certify that we have taken steps to ensure that in conformity with the provisions of the RFP document, no person acting for us or on our behalf has engaged or will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.
7. I/We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in the RFP.
8. In the event of my / our bid being declared as successful bid, I/we agree to enter into a Contract Agreement in accordance with the format of the Contract Agreement. I/We agree not to seek any change in the aforesaid format of the Contract Agreement and agree to abide by the same.
9. I/We certify that:
- i. I/We have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority which could cast a doubt on our ability to undertake the subject work or which relates to a grave offence that outrages the moral sense of the community.
 - ii. Neither the bidder nor any of its directors are the subject of criminal or civil proceedings that could be expected to adversely affect its business or its ability to bid in the present tender.
 - iii. No investigation by a regulatory authority is pending either against us or against our CEO or any of our directors/ managers/ employees.
 - iv. I / We don't have any conflict of interest in terms of Clause 3.2 of RFP document.
 - v. The information provided in this technical bid (including the attachments) as well as the financial bid is true, accurate and complete to the best of my knowledge and belief. Nothing has been omitted which renders such information misleading; and all

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documents accompanying my/our bid are true copies of their respective originals. I/We shall be liable for disqualification or termination of contract at any stage, if any information/ declaration is found to be incorrect or false. I/We will intimate IHMCL promptly in case of any change in the information submitted as part of this technical bid.

- vi. I/We offer the cost of the RFP document and bid Security in accordance with the RFP document as per the details furnished below:

#	Reference No.	Date	Amount (Rs.)	Issuing Bank / Branch
Tender Fee				
Bid Security				

10. I am the Director / Authorized Signatory of the aforesaid company / firm, and I am authorized to sign this bid on behalf of the firm / company. I submit this bid after carefully reading all the terms and conditions contained in the RFP document and its addendum/ amendment, if any, and undertake to abide by the same. It is also certified that the bid is being submitted in the prescribed formats without any addition / deviation / alteration and our bid is unconditional.

Yours Sincerely,

Name

Designation/ Title of the Authorized Signatory.....

Form T-2: Brief Information about the Bidder(s)

(To be prepared on letterhead of the Bidder)

To,

Chief Operating Officer,
Indian Highways Management Company Limited,
2nd Floor, Asia Bhawan, Sector-09, Dwarka,
New Delhi – 110077

Sub.: Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region

Ref: RFP No. on above subject.

- 1)
 - a) Name of Bidder :
 - b) Year of establishment :
 - c) Constitution of the bidder entity e.g., Government enterprise, private limited company, limited company, proprietorship / partnership firm etc.
 - d) In case of a government enterprise, please indicate as to whether legally and financially autonomous and operate under commercial law.
 - e) Name(s) of Directors/ Proprietors/ Partners: Yes/ No/ Not applicable
- 2) Address for correspondence with Telephone/ Fax numbers/ e-mail address:
 - (a) Complete postal address :
 - (b) Fixed telephone number :
 - (c) Mobile telephone number :
 - (d) E-mail address :
- 3) Name & Address of the Acquirer bank:
 - (a) Bank A/c Number :
 - (b) Branch Address :
 - (c) IFSC /MICR Code :
 - (d) GSTIN (as applicable) :
- 4) Name of the Statutory Auditor/ Company Secretary/ Chartered Accountant certifying the documents along with his/ her Membership number, if applicable:

Name

Designation of the Authorized Signatory

Form T-3 Power of Attorney/Letter of Authorization (as relevant)

(On non-judicial Stamp Paper of appropriate denomination)

Know all men by these presents, we, (Name of Company and address of the registered

office) do hereby constitute, nominate, appoint and authorize Mr. / Ms.
son/daughter/wife

of..... and presently residing at, who is presently employed with us and holding the position of as our true and lawful attorney (hereinafter referred to as the "Authorized Signatory or Attorney") to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our Bid for selection as the Bidder for **"Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region"** proposed by Indian Highways Management Company Limited, including but not limited to signing and submission of all applications, bid(s) and other documents and writings, and providing information/ responses to IHMCL, representing us in all matters before IHMCL, signing and execution of all contracts and undertakings consequent to acceptance of our bid and generally dealing with IHMCL in all matters in connection with or relating to or arising out of our Bid for the said Tender and/or upon award thereof to us.

AND, we do hereby agree to ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Authorized Signatory or Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Authorized Representative/ Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us. IN WITNESS WHEREOF WE, THE ABOVE-NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF, 202_

For

(Signature, name, designation, and address)

Witnesses:

- 1.
- 2.

Notarised

Accepted

.....

(Signature, name, designation, and address of the Attorney)

Notes:

- a. The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executants(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure. **The Power of Attorney should be executed on a non-judicial stamp paper of appropriate denomination and should be duly notarised by a notary public.**
- b. Wherever required, the bidder should submit for verification the extract of the charter documents and other documents such as a resolution/power of attorney in favour of the person executing this Power of Attorney for the delegation of power hereunder on behalf of the bidder.
- c. For a Power of Attorney executed and issued overseas, the document will also have to be legalised by the Indian Embassy and notarised in the jurisdiction where the Power of Attorney is being issued. However, bidders from countries that have signed the Hague Legislation Convention 1961 need not get their Power of Attorney legalised by the Indian Embassy if it carries a conforming Apostles certificate.

Form T-4 Undertaking on Acquirer Bank Certification by NPCI

(To be prepared on letterhead of the Bidder)

(To be submitted in case the Bidder is not currently a certified Acquirer Bank by NPCI under NETC Programme)

To,

Chief Operating Officer,
Indian Highways Management Company Limited,
2nd Floor, Asia Bhawan, Sector-09, Dwarka,
New Delhi – 110077

Sub.: Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region

Ref: RFP No. on above subject.

Dear Sir,

We, **[Insert Name of the Bidder]**, having our registered office at **[Insert Registered Address]**, do hereby undertake that, in the event of award of the Contract Agreement pursuant to this said RFP, we shall obtain the Acquirer Bank certification under the FASTag NETC Programme from the National Payments Corporation of India (NPCI) within 90 (ninety) days from the date of issuance of the Letter of Award (LOA).

We further acknowledge and agree that failure to obtain and submit a valid Acquirer Bank certification from NPCI within the stipulated timeframe shall be deemed a material breach of the Contract Agreement, and may result in appropriate remedial action as per the terms and conditions laid down in the RFP and Contract Agreement.

Thanking you.

Yours faithfully,
For **[Insert Name of the Bidder]**

[Signature]
[Name of the Authorized Signatory]

[Designation]
[Contact Details]

Form T-5 Undertaking by the Bidder

To,

Chief Operating Officer,
Indian Highways Management Company Limited,
2nd Floor, Asia Bhawan, Sector-09, Dwarka,
New Delhi – 110077

Sub.: Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region

Ref: RFP No. on above subject.

Dear Sir,

I/we undertake the following:

- 1) That the proposed OEM(s) fully comply with the Office Memorandum no. F. No. NH-35014/20/2020-H, Government of India, Ministry of Road Transport & Highways dated 04.08.2020, regarding Department of Expenditure (DoE) Ministry of Finance, Govt. of India O.M. No. 6/18/2019-PPD dated 23.07.2020, vide which Rule 144 of the general Financial Rules 2017 entitled "Fundamental principles of public buying" has been amended by inserting sub-rule 144 (xi) in the General Financial Rules (GFRs), 2017 which states that:
 - a. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority." This condition shall also be applicable on sub- contracting of any works / goods / services, etc. The Bidder shall furnish the registration status of the sub-contractor (SI)/ supplier with Competent Authority (for the items / goods proposed to be procured from any country which shares a land border with India)
- 2) That the OEM(s) shall not be rebranding & reselling products in India through importing/trading from a country that shares a Land Border with India.
- 3) That the source code of the Software and Firmware being supplied for all the relevant equipment being supplied against this bid does not reside in any Country that shares a Land Border with India.
- 4) That the OEM(s) for all active components will give a declaration that products or technology quoted are neither end-of- sale nor end-of-life as on the date of installation and commissioning and are not end-of-support till the successful completion of O&M period of the project.
- 5) That the proposed OEM is not blacklisted by any State / Central Government Department or Central /State PSUs as on bid submission date.

- 6) That each of the proposed OEM(s) has capability and infrastructure to provide 24x7x365 technical support in India.
- 7) Adequate supporting documents pertaining to the above points, along with a summary compliance table, should be submitted in the technical proposal (Form T-6) by the Bidder.

(Name and Signature of the Power of Attorney Holder)

Form T-6 Submission of Detailed Methodology and Work Plan

To,
 Chief Operating Officer,
 Indian Highways Management Company Limited,
 2nd Floor, Asia Bhawan, Sector-09, Dwarka,
 New Delhi – 110077

Sub.: Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region

Ref: RFP No. on above subject.

NOTE:

- i. Submission under this item is subject to evaluation under technical bid, while giving information, the bidders are advised to strictly focus and address the topic/sub-topic as asked for in a structured manner. Any superfluous submission shall be at bidders' risk.
- ii. IHMCL/IHMCL's Representative may seek clarification on any of the submission made by the bidder in form T-6. Any superfluous submission or inconsistent clarification with respect to site condition, is liable to make the bid non-responsive.

Dated: /....

i. System design document for implementation of **Vehicle Monitoring, Enforcement and Collection System** with a list of items with quantity and location of equipment:

.....

S.No.	Equipment	Location ² (Gantry)	Geo Code	Quantity
1.				
2.				
3.				
Total Quantity				

ii. Control Center Hardware design document with a list of items with quantity Software architecture & components

.....

² Refer Schedule B (1)(c)



.....
.....

iii. Methodology of implementation:

.....
.....
.....
.....

iv. Equipment Delivery Schedule and Time schedule to complete the entire work supported with bar chart, including the civil works for **Vehicle Monitoring, Enforcement and Collection System**:

.....
.....
.....

v. Make, model, specs, and Brochure of all major components (hardware & software) *:

.....
.....
.....

vi. Any other aspects the Bidder may wish to add:

.....
.....
.....
.....

vii. System Design (Hardware and Software) proposed.

.....
.....

viii. Design of **Vehicle Monitoring, Enforcement and Collection System**.

.....

ix. Total manpower being proposed as per design by designation.



.....

*Any equipment/hardware not conforming to OEM criteria given in RFP shall make the bid liable to be rejected.

(Name and Signature of the Bidder)

Form T-7 Proforma for submitting written queries.

(To be submitted in doc/editable format only at the given email address)

To,
Chief Operating Officer,
Indian Highways Management Company Limited,
2nd Floor, Asia Bhawan, Sector-09, Dwarka,
New Delhi – 110077

Sub.: Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region

Ref: RFP No. on above subject.

Dated: /....

Name of Company: _____,

Name of Person _____

Contact No. _____,

Email Id: _____

Sr.No.	Page no. of RFP	Clause	RFP Statement	Query	Remarks

Form T-8 Bank Guarantee for Bid Security

(Refer Clauses 2.2 of General Terms of Bidding in Section -I of RFP)

B.G. No.

Dated:

1. In consideration of you, ****, having its office at **** (hereinafter referred to as the "Authority", which expression shall, unless it be repugnant to the subject or context thereof, include its successors and assigns), having agreed to receive the BID of and having its registered office at (and acting on behalf of its JV) (hereinafter referred to as the "Bidder", which expression shall, unless it be repugnant to the subject or context thereof, include its/their executors, administrators, successors, and assigns), for Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region (hereinafter referred to as "the Project") pursuant to the RFP Document dated issued in respect of the Project and other related documents, including without limitation the draft contract Agreement (hereinafter collectively referred to as "Bidding Documents"), we (Name of the Bank) having our registered office at and one of its branches at (hereinafter referred to as the "Bank"), at the request of the Bidder, do hereby, in terms of Clause 2.2 read with Clause 2.3 of the RFP Document, irrevocably, unconditionally, and without reservation guarantee the due and faithful fulfilment and compliance of the terms and conditions of the Bidding Documents (including the RFP Document) by the said Bidder and unconditionally and irrevocably undertake to pay forthwith to the Authority an amount of Rs. ***** (Rupees ***** only) (hereinafter referred to as the "Guarantee") as our primary obligation without any demur, reservation, recourse, contest, or protest and without reference to the Bidder if the Bidder shall fail to fulfil or comply with all or any of the terms and conditions contained in the said Bidding Documents.
2. Any such written demand made by the Authority stating that the Bidder is in default of the due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents shall be final, conclusive, and binding on the Bank.
3. We, the Bank, do hereby unconditionally undertake to pay the amounts due and payable under this Guarantee without any demur, reservation, recourse, contest, or protest and without any reference to the Bidder or any other person and irrespective of whether the claim of the Authority is disputed by the Bidder or not, merely on the first demand from the Authority stating that the amount claimed is due to the Authority by reason of the failure of the Bidder to fulfil and comply with the terms and conditions contained in the Bidding Documents, including failure of the said Bidder to keep its BID open during the BID validity period set forth in the said Bidding Documents for any reason whatsoever. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs. *** ** (Rupees *** ** only).

4. This Guarantee shall be irrevocable and remain in full force for a period of 180 (one hundred and eighty) days from the BID Due Date inclusive of a claim period of 60 (sixty) days or for such extended period as may be mutually agreed between the Authority and the Bidder, and agreed to by the Bank, and shall continue to be enforceable till all amounts under this Guarantee have been paid.
5. We, the Bank, further agree that the Authority shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents, including, inter alia, the failure of the Bidder to keep its BID open during the BID validity period set forth in the said Bidding Documents, and the decision of the Authority that the Bidder is in default as aforesaid shall be final and binding on us, notwithstanding any differences between the Authority and the Bidder or any dispute pending before any Court, Tribunal, Arbitrator, or any other Authority.
6. The Guarantee shall not be affected by any change in the constitution or winding up of the Bidder or the Bank or any absorption, merger, or amalgamation of the Bidder or the Bank with any other person.
7. To give full effect to this Guarantee, the Authority shall be entitled to treat the Bank as the principal debtor. The Authority shall have the fullest liberty, without affecting in any way the liability of the Bank under this Guarantee, from time to time to vary any of the terms and conditions contained in the said Bidding Documents or to extend the time for the submission of the BIDs or the BID validity period or the period for conveying acceptance of the Letter of Award by the Bidder or the period for fulfilment and compliance with all or any of the terms and conditions contained in the said Bidding Documents by the said Bidder or to postpone for any time and from time to time any of the powers exercisable by it against the said Bidder and either to enforce or forbear from enforcing any of the terms and conditions contained in the said Bidding Documents or the securities available to the Authority, and the Bank shall not be released from its liability under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the said Bidder or any other forbearance, act or omission on the part of the Authority or any indulgence by the Authority to the said Bidder or by any change in the constitution of the Authority or its absorption, merger, or amalgamation with any other person or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of releasing the Bank from its such liability.
8. Any notice by way of request, demand, or otherwise hereunder shall be sufficiently given or made if addressed to the Bank and sent by courier or by registered mail to the Bank at the address set forth herein.
9. We undertake to make the payment on receipt of your notice of claim on us addressed to [name of Bank along with branch address] and delivered at our above branch, which shall be deemed to have been duly authorized to receive the said notice of claim.
10. It shall not be necessary for the Authority to proceed against the said Bidder before

proceeding against the Bank, and the guarantee herein contained shall be enforceable against the Bank, notwithstanding any other security which the Authority may have obtained from the said Bidder or any other person and which shall, at the time when proceedings are taken against the Bank hereunder, be outstanding or unrealized.

11. We, the Bank, further undertake not to revoke this Guarantee during its currency except with the previous express consent of the Authority in writing.
12. The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated herein; the undersigned is duly authorized and has full power to execute this Guarantee for and on behalf of the Bank.
13. For the avoidance of doubt, the Bank's liability under this Guarantee shall be restricted to Rs. *** crore (Rupees ***** crore only). The Bank shall be liable to pay the said amount or any part thereof only if the Authority serves a written claim on the Bank in accordance with paragraph 9 hereof, or before [*** (indicated date falling 180 days after the BID Due Date)]
14. This guarantee shall also be operatable at our Branch, New Delhi from whom, confirmation regarding the issue of this guarantee or extension / renewal thereof shall be made available on demand. In the contingency of this guarantee being invoked and payment thereunder claimed, the said branch shall accept such invocation letter and make payment of amounts so demanded under the said invocation.
15. The guarantor/bank hereby confirms that it is on the SFMS (Structural Finance Messaging System) platform & shall invariably send an advice of this Bank Guarantee to the designated bank of [Ministry/IHMCL/NHIDCL/State PWD/BRO], details of which is as under:

#	Particulars	Details
1	Name of Beneficiary	Indian Highways Management Company Limited
2	Name of Bank	Canara Bank
3	Account No.	8598201006217
4	IFSC	CNRB0008598

Signed and Delivered by Bank

By the hand of Mr. /Ms....., its and authorized official.

(Signature of the Authorized Signatory)

(Official-Seal)

Form T-9 Format of Bank Guarantee

Performance Security/Additional Performance Security]

To,

Chief Operating Officer,

Indian Highways Management Company Limited,

2nd Floor, Asia Bhawan, Sector-09, Dwarka

New Delhi – 110077

Sub.: Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region

Ref: RFP No. on above subject.

WHEREAS:

- (A) _____ [name and address of Bidder] (hereinafter called the “**Bidder**”) and Indian Highways Management Company Limited, G-5 & 6, Sector 10, Dwarka, New Delhi - 110075, (hereinafter called the “**Authority**”) have entered into an agreement (hereinafter called the “**Agreement**”) for “**Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region**” subject to and in accordance with the provisions of the Agreement
- (B) The Agreement requires the Bidder to furnish a Performance Security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the {Implementation Period/ Defects Liability Period and Maintenance Period} (as defined in the Agreement) in a sum of Rs.... cr. (Rupees crore) (the “**Guarantee Amount**”).
- (C) We, through our branch at (the “**Bank**”) have agreed to furnish this bank guarantee (*hereinafter called the “**Guarantee**”*) by way of Performance Security.

NOW, THEREFORE, the Bank hereby, unconditionally, and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Bidder’s obligations during the {Implementation Period/ Defects Liability Period and Maintenance Period} under and in accordance with the Agreement, and agrees and undertakes to pay to the Authority, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Bidder, such sum or sums up to an aggregate sum of the Guarantee Amount as the Authority shall claim, without the Authority being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
2. A letter from the Authority, under the hand of an officer not below the rank of General Manager in the Indian Highways Management Company Limited, that the Bidder has committed default in the due and faithful performance of all or any of its obligations under

and in accordance with the Agreement shall be conclusive, final, and binding on the Bank. The Bank further agrees that the Authority shall be the sole judge as to whether the Bidder is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Bidder is in default shall be final and binding on the Bank, notwithstanding any differences between the Authority and the Bidder, or any dispute between them pending before any court, tribunal, arbitrators or any other authority or body, or by the discharge of the Bidder for any reason whatsoever.

3. To give effect to this Guarantee, the Authority shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Bidder and/or the Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Authority to proceed against the Bidder before presenting to the Bank its demand under this Guarantee.
5. The Authority shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfilment and/ or performance of all or any of the obligations of the Bidder contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Authority against the Bidder, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Authority, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the Bidder or any other forbearance, indulgence, act or omission on the part of the Authority or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Authority in respect of or relating to the Agreement or for the fulfilment, compliance and/or performance of all or any of the obligations of the Bidder under the Agreement.
7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Authority on the Bank under this Guarantee all rights of the Authority under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
8. The Guarantee shall cease to be in force and effect on ****. Unless a demand or claim under this Guarantee is made in writing before expiry of the Guarantee, the Bank shall be discharged from its liabilities hereunder.
9. The Bank undertakes not to revoke this Guarantee during its currency, except with the

previous express consent of the Authority in writing and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.

10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Authority that the envelope was so posted shall be conclusive.
11. This Guarantee shall come into force with immediate effect and shall remain in force and effect for up to the date specified in paragraph 8 above or until it is released earlier by the Authority pursuant to the provisions of the Agreement.
12. This guarantee shall also be operatable at our..... Branch at New Delhi, from whom, confirmation regarding the issue of this guarantee or extension / renewal thereof shall be made available on demand. In the contingency of this guarantee being invoked and payment thereunder claimed, the said branch shall accept such invocation letter and make payment of amounts so demanded under the said invocation.
13. The guarantor/bank hereby confirms that it is on the SFMS (Structural Finance Messaging System) platform & shall invariably send an advice of this Bank Guarantee to the designated bank of IHMCL, details of which is as under:

#	Particulars	Details
1	Name of Beneficiary	Indian Highways Management Company Limited
2	Name of Bank	Canara Bank
3	Account No.	8598201006217
4	IFSC	CNRB0008598

Signed and sealed this day of, 20..... at.....

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

- (i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- (ii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

Form T-10 Indicative MOU Agreement Format

MEMORANDUM OF UNDERSTANDING

(To be executed on Non-Judicial Stamp Paper of INR 100 and duly notarized)

This **Memorandum of Understanding (MoU)** is made and entered into on this ____ day of _____, 2025 at [Place],

BY AND BETWEEN

[Name of the Bidder], a Bank incorporated under _____, having its registered office at [Address], hereinafter referred to as the "**Bidder**" (which expression shall, unless repugnant to the context or meaning thereof, mean and include its successors and assigns) of the **First Part**,

AND

[Name of the Sub-Contractor / System Integrator], a company/LLP incorporated under the [Companies Act, 1956/2013 or LLP Act, 2008 or equivalent foreign law], having its registered office at [Address], hereinafter referred to as the "**System Integrator**" or "**SI**" (which expression shall, unless repugnant to the context or meaning thereof, mean and include its successors and permitted assigns) of the **Second Part**.

The Bidder and the SI are individually referred to as a "Party" and collectively as the "Parties."

WHEREAS:

1. **Indian Highways Management Company Limited (IHMCL)** has issued a Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region
2. The Bidder intends to submit a proposal in response to the said RFP and is required to execute the Vehicle Monitoring, Enforcement and Collection System(VMECS) System through a reputed Sub-Contractor (System Integrator).
3. The SI is a reputed System Integrator with proven experience in deploying Vehicle Monitoring, Enforcement and Collection System or similar Intelligent Transportation Systems (ITS), and is eligible as per RFP conditions.
4. The Parties now wish to record their mutual understanding and agreement in this MoU regarding their collaboration for the purpose of the RFP and potential award of work.

AS MUTUAL UNDERSTANDING OF THE PARTIES, IT IS HEREBY AGREED AND DECLARED AS FOLLOWS:

1. Purpose of MoU

The purpose of this MoU is to confirm the mutual understanding between the Parties, wherein the SI shall act as the exclusive System Integrator for the Bidder in the subject RFP.

2. Exclusivity

The SI agrees that it shall exclusively associate with the Bidder for this specific RFP and shall not participate, directly or indirectly, with any other bidder in the same tender process. In case the SI is found to be associated with multiple bids, both or all such bids shall be liable to be declared non-responsive, as per the RFP.

3. Roles and Responsibilities of Bidder

- _____

4. Roles and Responsibilities of Sub-Contractor

- _____

5. Incorporation and Eligibility

The SI confirms that it is incorporated under the applicable law (as mentioned above) and, if an entity from a country sharing land border with India, is duly registered with the Competent Authority as per Government of India guidelines (if applicable).

6. Duration and Termination

This MoU shall remain valid from the date of signing until the completion of the tender process, and in case the contract is awarded to the Bidder, until the end of the contractual obligations unless terminated earlier by mutual written consent.

7. Governing Law and Jurisdiction

This MoU shall be governed by and construed in accordance with the laws of India. Any disputes arising out of or in connection with this MoU shall be subject to the exclusive jurisdiction of courts at New Delhi.

IN WITNESS WHEREOF, the Parties hereto have caused this MoU to be executed by their duly authorized representatives on the date and place first above written.

Signed for and on behalf of

[Bidder Name]

(Signature)

Name:

Designation:

Seal:

Signed for and on behalf of

[System Integrator Name]

(Signature)

Name:

Designation:

Seal:

Witnesses:

1. _____
2. _____

Form T-11 Undertaking for Compliance

To,
Chief Operating Officer,
Indian Highways Management Company Limited,
2nd Floor, Asia Bhawan, Sector-09, Dwarka
New Delhi – 110077

Sub.: Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region

Ref: RFP No. on above subject.

Name of the Bidder:

S. No.	Equipment Name	OEM Name(s)* Proposed by Bidder
1.	ANPR Cameras	
2.	RFID Reader & Antenna	
3.	Detector-Radar	
4.	Audit Surveillance Camera	
5.	And other Equipment (As per Indicative BoQ)	

* The Bidder shall mention the name of all the OEM(s) being proposed for the concerned equipment.

We undertake that the minimum specifications of the equipment mentioned in the RFP shall be provided by the above OEM(s) proposed by us in our Vehicle Monitoring, Enforcement and Collection System solution to meet the functional requirements mentioned in the RFP.

Bidder Name:

Name of Person Holding Power of Attorney:

Signature:

Date: ...

Form-T:12 Format for the declaration of non-Blacklisting

DECLARATION – non-blacklisting

(By Authorized signatory on company letter head)

To,
Chief Operating Officer,
Indian Highways Management Company Limited,
2nd Floor, Asia Bhawan, Sector-09, Dwarka
New Delhi – 110077

Sub.: Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region

Ref: RFP No. on above subject.

I /We hereby declare that _____, as on the date of bid submission, has not been blacklisted or debarred in the last three years for the work performed by it and is not under blacklisting period /active debarred list by _____ or any of the Central or State Government Organization / Public Sector Undertaking / Autonomous Body in India or abroad.

Signed: (insert signature of person whose name and capacity are shown)

Name: (insert complete name of person signing the Bid Securing Declaration having the Power of Attorney)

Duly authorized to sign the bid for an on behalf of (insert complete name of Bidder/Sub-Contractor)

Dated on _____ day of _____ (insert date of signing)

Form-T:13 – Manufacturer's Authorization Form (MAF)

(In the letterhead of the OEM)

[NOTE: The Bidder must submit a Manufacturer's Authorization Form (MAF) for the proposed equipment, duly filled and signed by the Manufacturer/OEM. The form must be signed by an authorized representative of the Manufacturer. The Bidder is required to submit the MAF for at least the following components:

- i. RFID Reader & Antenna*
- ii. ANPR Cameras*
- iii. Audit Surveillance Camera*
- iv. Detector-Radar*

Dear Sir,

We, **[Insert Full Legal Name of Manufacturer/OEM]**, a company duly organized and existing under the laws of **[Insert Country]**, having our principal manufacturing facilities at **[Insert Complete Address of Manufacturer's Factories]**, do hereby authorize **[Insert Full Legal Name of the Bidder]**, having its registered office at **[Insert Bidder's Full Address]**, to submit a Bid and conclude the Contract with you against the above-mentioned RFP for the supply of the following goods manufactured by us:

We confirm that we continue to meet all eligibility and technical compliance criteria as outlined in the RFP, and in particular, we hereby declare and confirm the following:

- i. We comply with the Office Memorandum No. F. No. NH-35014/20/2020-H, Ministry of Road Transport & Highways, Government of India, dated 04.08.2020, which refers to the Department of Expenditure (DoE), Ministry of Finance, O.M. No. 6/18/2019-PPD dated 23.07.2020. We understand and comply with the amended Rule 144 of the General Financial Rules (GFR), 2017, specifically sub-rule 144 (xi). Accordingly, for any goods proposed to be procured from a country sharing a land border with India, the required registration with the Competent Authority has been duly obtained and the details are enclosed.
- ii. We undertake that we shall not rebrand or resell products in India by importing or trading from countries sharing a land border with India.
- iii. We confirm that the source code of the software and firmware supplied for all equipment under this bid does not reside in any country sharing a land border with India.
- iv. We confirm that we have been in the business of the said product or solution or technology for at least three (3) years as on the date of issue of the RFP.
- v. We confirm that the products or technology quoted are not end-of-sale, end-of-life, or end-of-support as on the date of installation and commissioning and will remain supported through the full O&M period of the project.
- vi. We confirm that we have the capability and infrastructure to provide 24x7x365 technical support

in India.

- vii. We will comply with all applicable regulatory guidelines, standards, and certifications as prescribed by the Government of India. Documentary evidence of such compliance will be submitted prior to commencement of the System Acceptance Testing (SAT). We understand that failure to do so will constitute a material breach of contract, which may result in replacement, contract termination, and/or forfeiture of performance security.

Further, we hereby extend our full guarantee and warranty for the goods offered by the above-mentioned Bidder as per the terms and conditions of the RFP and the resulting contract.

This Authorization shall be valid throughout the duration of the Contract, including any extensions thereof.

Sincerely,

[Signature of Authorized Signatory]

Name: [Insert Full Name]

Designation: [Insert Designation]

Company: [Insert Manufacturer's Company Name]

Email: [Insert Official Email Address]

Phone: [Insert Contact Number]

Seal: [Affix Company Seal]

Form -T:14 – Checklist to be submitted by the bidder

S. No.	Form/ Document required	To be signed by	Submission Status (Yes/ No)
1.	Proof of submission of Document Fee	Bidder/Bank	
2.	Form T-1 Technical Bid Covering Letter	Bidder/Bank	
3.	Form T-2: Brief Information about the Bidder(s)	Bidder/Bank	
4.	Form T-3 Power of Attorney/Letter of Authorization (as relevant)	Bidder/Bank & Sub-Contractor*	
5.	Form T-4 Undertaking on Acquirer Bank Certification by NPCI	Bidder/Bank	
6.	Form T-5 Undertaking by the Bidder	Bidder/Bank	
7.	Form T-6 Submission of Detailed Methodology and Work Plan	Bidder/Bank	
8.	Form T-8 Bank Guarantee for Bid Security	Bidder/Bank	
9.	Form T-10 Indicative MOU Agreement Format	Bidder/Bank & Sub-Contractor*	
10.	Form T-11 Undertaking for Compliance In case proposed OEM is different from Preferred OEMs, supporting documents to be provided confirming the product has been deployed in a Vehicle Monitoring, Enforcement and Collection System(VMECS), either in India or internationally, and has been operational for a minimum of one (1) year as of the bid submission date.	Bidder/Bank	
11.	Form-T:12 Format for the declaration of non-Blacklisting	Bidder/Bank & Sub-Contractor*	
12.	Form-T:13 – Manufacturer's Authorization Form (MAF)	In the letterhead of the OEM	
13.	Copy of Certificate of Incorporation / Registration under Companies Act, 1956/2013 or any equivalent foreign act, or as applicable.	Sub-Contractor*	

*All credentials of Sub-Contractor (SI) and OEM are required to be countersigned by bidder/bank.

(Signature of the Authorized Signatory)

Appendix A-Form F-1: Format for Financial Bid Submission

(For sample only, actual Format to be downloaded from e-tender portal for on-line submission)

To,
Chief Operating Officer,
Indian Highways Management Company Limited,
2nd Floor, Asia Bhawan, Sector-09, Dwarka
New Delhi – 110077

Sub.: Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region

Ref: RFP No. on above subject.

Bidder's Name:	
Address:	
Email:	

#	Name of Project	Fixed Per Transaction Cost (in Rs.) (upto max 2 decimal places)
1	Vehicle Monitoring, Enforcement and Collection System along EPE and WPE in Delhi-National Capital Region (NCR)	

Note:

- i. The above Per Transaction Cost (in Rs.) shall be inclusive of Taxes/GST, as applicable.

Name: ...

Designation: ...

****No financials should be a part of technical bid. If any form of financial bid/indication is mentioned in the technical bid, IHMCL shall summarily reject the bid.**

Form F-2: Format for Equipment Cost break up

Bidder's Name:	
Address:	
Email:	

#	Minimum BoQ	Unit Rate (in Rs.)	Quantity	Total Price (in Rs.)
A	Field Equipment-Gantry			
1	RFID Antenna			
2	RFID Reader			
3	Detector -Radar			
4	ANPR Camera (Including Housing and Mounting)			
5	Audit Surveillance Camera including night vision and Mounting			
6	IR Illuminator			
7	Field Junction Box with Surge Protector Device			
8	Edge Level switch (8 Port or as per requirement)			
9	Switch (Layer 3) – 24 Port (HA Mode)			
10	LPU with all network equipment			
11	Gantry			
12	Any additional Component			
B	Local Control Centre (Field Equipment)			
1	Local Server (HA Mode)			
2	Server Rack (27U)			
3	Workstation with Display 27"			
4	Porta Cabin			
5	Data Storage Including peripheral, transaction, video storage, NVR ETC			
6	Porta Cabin Camera Monitoring System			
7	Air Conditioner as per requirement for maintaining temperature for Portal cabin VMECS			
8	Switch (Layer 3) – 24 Port (HA Mode)			
9	10 KVA Online UPS			
10	DG-30 KVA			
11	Redundant Internet Connectivity (100 Mbps)			
12	Firewall with all licenses			
13	Junction Box with Surge Protector Device			

Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region

14	Armoured OFC , Electrical Cable , Cat-6 A cable with adequate Cable tray, Earthing, Lightning Protection, Network Surge Protection			
15	Any additional Component			
C	Central Command Control Centre Equipment			
1	Central Server/Cloud Server (HA Mode)			
2	Server Rack (42U) if physical server			
3	Workstation with Display 27"			
4	Video Wall for Cameras			
5	Network Colour Printer			
6	Servers/Cloud and Data Storage including peripherals (NVR / CAMERA SERVER with NAS/RAID Backup device) all complete as per the Standards & Specifications			
7	Redundant Internet Connectivity (1 Gbps)			
8	Firewall with all licenses			
9	Junction Box with Surge Protector Device			
10	Armoured OFC , Electrical Cable , Cat-6 A cable with adequate Cable tray, Earthing, Lightning Protection, Network Surge Protection			
11	Any additional Component			
D	VMECS Software (Field & Control Centre)			
1	VMECS portal and Dashboard and two license			
2	ANPR Application Per Channel			
3	Video Management Software Base License			
4	Video Management Software Per Channel license			
5	Detector -Radar applications			
6	RFID Reader and Antenna Application			
7	Video Analytics (Camera/ Application)			
8	Enterprise Management Software (EMS)			
9	Integration with VAHAN			
10	Operating System			
11	Any additional			

Note:

- Bidders must fill in the quantities and unit rates for the equipment/services/software, etc., as specified above to meet the functional requirements outlined in Schedule B, adhering to the standards and specifications in Schedule C. Any variations in quantities or omitted items will not result in additional payments or changes to the scope.
- Form F-2 is solely for calculating the Depreciated Cost according to Clause 1.2.35 of the General Conditions of Contract in the RFP. The L-1 Bidder will be selected based on the Fixed Per Transaction Cost in Form F-1. If the cost of installations derived from Form F-2 exceeds ₹1 crore for each location, the depreciated cost will be calculated based on the ceiling limit of ₹1 crore for each location, as per clause 1.2.35 (2) of the RFP.
- Line items not applicable to the bidder's proposed design may be left blank. The rates should include all statutory taxes/levies, excluding service tax/GST (as applicable). Updates should be made according to the reference RFP shared by IHMCL.

PART-III
DRAFT FORM OF CONTRACT
AGREEMENT

1.1.DRAFT CONTRACT AGREEMENT

No.

This Contract Agreement (hereinafter called the "Contract") is made on this _____ day of the month of _____, 202_.

BETWEEN

Indian Highways Management Company Limited (IHMCL), incorporated under Companies Act 1956, and having its registered office at 2nd Floor, Asia Bhawan, Sector-09, Dwarka, New Delhi – 110077(hereinafter referred to as the "IHMCL", which expression shall, unless repugnant to or inconsistent with the context, mean and include its successors and assigns) of the first part.

AND

M/s _____, an Acquirer Bank incorporated under the provisions of the (Hereinafter referred to as the "Bidder/Bank" which expression shall unless repugnant to or inconsistent with the context, mean and include its successors and assigns) of the OTHER PART.

WHEREAS

- a) IHMCL is mandated by NHAI to implement and manage the Vehicle Monitoring, Enforcement and Collection System In Delhi NCR National Capital Region.
- b) the Bidder, in the ordinary course of its business, is engaged in providing similar services to their clients, and have represented to IHMCL through their bids, against" that they have the required experience, professional skills, personnel and technical resources to provide the required Services of Vehicle Monitoring, Enforcement and Collection System for National Capital Territory Region.
- c) on the basis of the said Tender, IHMCL has adjudged the Bidder as a Successful Bidder and issued Letter of Award (LoA) No. dated. __.202_ for the same.
- d) the Bidder has, vide its Letter of Acceptance No. _____ dated _____, agreed to provide the said Services in accordance with the terms and conditions set forth in this Contract Agreement and has furnished a Performance Guarantee aggregating to Rs. _____ (Rupees _____ only), comprising (i) a crossed account payee Demand Draft/Pay Order amounting to Rs. _____ (Rupees _____ only), being 50% of the total Performance Guarantee value, and (ii) a Bank Guarantee amounting to Rs. _____ (Rupees _____ only), being the remaining 50% of the total Performance Guarantee value, in the format prescribed under the RFP, which shall remain valid up to a period of one (01) year beyond the completion/expiry of the Contract.

NOW THEREFORE, in consideration of the foregoing and the respective covenants and agreements set forth in this Contract Agreement, the receipt and sufficiency of which is hereby acknowledged, and intending to be legally bound hereby, the Parties hereby agree as follows:

Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region

1. The mutual rights and obligations of the Bidder and IHMCL shall be as set forth in this Contract Agreement, in particular:
 - i. The Bidder shall carry out the Services in accordance with the provisions of the Contract and Good Industry Practice; and
 - ii. IHMCL shall make payments to the Bidder in accordance with the provisions of the Contract.

2. The following schedules/ appendices shall be deemed to form and be read and construed as part of this Contract Agreement viz.

General Conditions of Contract	
Schedule A:	The Site
Schedule B:	The Proposed Vehicle Monitoring, Enforcement and Collection System
Schedule C:	Standards & Technical Specifications
Appendices:	
Appendix A	Copy of Financial Bid of the Bidder
Appendix B	Letter of Award issued by IHMCL
Appendix C	Letter of Acceptance submitted by the Bidder
Appendix D	Copy of the Performance Security submitted by the Bidder including copies of confirmation provided by the respective bank.
Appendix E	Copy of the Technical Bid and/or any subsequent correspondence of the Bidder/ IHMCL
Appendix F	Copy of RFP Document and subsequent amendment / addendum including Minutes of Pre-bid Meeting if any

IN WITNESS WHEREOF, the parties hereto have caused this Contract Agreement to be executed by their respective authorized representatives on the day and year first before written.

Request for Proposal (RFP) - Selection of Acquirer Bank for Implementation of Vehicle Monitoring, Enforcement and Collection System for National Capital Region

FOR AND ON BEHALF OF

(Indian Highways Management Company Limited) (Authorized Representative)

Name: _____

Designation: _____

Indian Highways Management Company Limited,

2nd Floor, Asia Bhawan, Sector-09, Dwarka

New Delhi – 110077

FOR AND ON BEHALF OF

(M/s _____)
(Authorized Representative)

Name: _____

Designation: _____

M/s _____

Address: _____

In the presence of following witnesses:

Name: _____

Designation _____

Indian Highways Management Company Limited

2nd Floor, Asia Bhawan, Sector-09, Dwarka

New Delhi – 110077

Name: _____

Designation: _____

M/s _____

Address: _____

Name: _____

Name: _____

Designation _____

Indian Highways Management Company Limited

2nd Floor, Asia Bhawan, Sector-09, Dwarka

New Delhi – 110077

Designation: _____

M/s _____

Address: _____

1.2. GENERAL CONDITIONS OF CONTRACT

1.2.1. Definition

The words and expressions beginning with capital letters and defined in this Contract Agreement shall, unless the context otherwise requires, have the meaning ascribed thereto herein and the words and expressions defined in the Schedules and used therein shall have the meaning ascribed thereto in the Schedules annexed hereto. Words used in capitals and not defined herein but defined in the RFP shall have the meaning as ascribed thereto in the RFP.

1.2.2. Interpretation

1.2.2.1. In this Contract Agreement, unless the context otherwise requires,

- a) references to any legislation or any provision thereof shall include amendment or re-enactment or consolidation of such legislation or any provision thereof so far as such amendment or re-enactment or consolidation applies or can apply to any transaction entered hereunder.
- b) references to laws of India or Indian law or regulation having the force of law shall include the laws, acts, ordinances, rules, regulations, bye laws or notifications which have the force of law in the territory of India and as from time to time may be amended, modified, supplemented, extended or re-enacted.
- c) references to a **“person”** and words denoting a natural person shall be construed as a reference to any individual, firm, company, corporation, society, trust, government, state or agency of a state or any association or partnership (whether having separate legal personality) of two or more of the above and shall include successors and assigns.
- d) the table of contents, headings or sub-headings in this Contract Agreement are for convenience of reference only and shall not be used in, and shall not affect, the construction or interpretation of this Contract Agreement.
- e) the words **“include”** and **“including”** are to be construed, without limitation and shall be deemed to be followed by **“without limitation”** or **“but not limited to”** whether they are followed by such phrases.
- f) any reference to any period shall mean a reference to that according to Indian Standard Time.
- g) references to a **“day”** shall be construed as a reference to all days of the year.
- h) any reference to month shall mean a reference to a calendar month as per the Gregorian calendar.
- i) references to any date, period or time shall mean and include such date, period or time as may be extended pursuant to this Contract Agreement.
- j) any reference to any period commencing **“from”** a specified day or date and **“till”** or **“until”** a specified day or date shall include both such days and dates; provided that if the last day of any period computed under this Contract Agreement is not a business day, then the period shall run until the end of the next business day.

- k) the words importing singular shall include plural and vice versa.
- l) “**lakhs**” means a hundred thousand (100,000) and “**crore**” means ten million (10,000,000).
- m) references to the “**winding-up**”, “**dissolution**”, “**insolvency**”, or “**reorganization**” of a company or corporation shall be construed so as to include any equivalent or analogous proceedings under the law of the jurisdiction in which such company or corporation is incorporated or any jurisdiction in which such company or corporation carries on business including the seeking of liquidation, winding-up, reorganization, dissolution, arrangement, protection or relief of debtors.
- n) save and except as otherwise provided in this Contract Agreement, any reference at any time to any agreement, deed, instrument, license or document of any description shall be construed as reference to that agreement, deed, instrument, license or other document as amended, varied, supplemented, modified or suspended at the time of such reference; provided that this Sub-clause shall not operate so as to increase liabilities or obligations of IHMCL hereunder or pursuant hereto in any manner whatsoever;
- o) any agreement, consent, approval, authorization, notice, communication, information or report required under or pursuant to this Contract Agreement from or by any Party shall be valid and effective only if it is in writing under the hand of a duly authorized representative of such Party, as the case may be, in this behalf and not otherwise.
- p) the Schedules and Recitals to this Contract Agreement form an integral part of this Contract Agreement and will be in full force and effect as though they were expressly set out in the body of this Contract Agreement.
- q) References to Recitals, Articles, Clauses, Sub-clauses or Schedules in this Contract Agreement shall, except where the context otherwise requires, mean references to Recitals, Articles, Clauses, Sub-clauses and Schedules of or to this Contract Agreement and references to a Paragraph shall, subject to any contrary indication, be construed as a reference to a Paragraph of this Contract Agreement or of the Schedule in which such reference appears; and
- r) the damages payable as set forth in this Contract Agreement, whether on per diem basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty (the “**Damages**”).
- s) “**Arbitration Act**” means the Arbitration and Conciliation Act, 1996 and shall include amendments, modifications to or any re-enactment thereof as in force from time to time.
- t) “**VMECS**” refers to Vehicle Monitoring, Enforcement and Collection System through FASTag-ANPR.
- u) “**SYSTEM**” means “Vehicle Monitoring, Enforcement and Collection System .”
- v) “**Effective Date**” shall mean date of this Contract Agreement.

- w) **“Uptime”** refers to the duration during which an Vehicle Monitoring, Enforcement and Collection System (VMECS) equipment or system is actively functioning, operating, and ready to execute its intended tasks effectively, meeting the operational characteristics as defined in the RFP document, without encountering significant interruptions or failures.
- x) **“Downtime”** refers to the period during which Vehicle Monitoring, Enforcement and Collection System (VMECS) equipment or system is either non-functional or not actively operating to execute its intended tasks effectively, thus failing to meet the operational characteristics outlined in the RFP document due to significant interruptions or failures.
- y) **“Bank”, “Bidder”, “Acquirer Bank” and “Service Provider”** mean the Successful Bidder who has executed the contract with IHMCL and has complied with other requirements as specified in this RFP to the satisfaction of IHMCL.
- z) **“Quoted Value”** mentioned in the RFP shall mean Fixed Per Transaction Fee quoted by the bidder in Form F-1.

1.2.2.2. Any word or expression used in this Contract Agreement shall, unless otherwise defined or construed in this Contract Agreement, bear its ordinary English meaning, and, for these purposes, the General Clauses Act 1897 shall not apply.

1.2.3. Definitions

The definitions mentioned in the RFP is referred from the Section under “Definitions” in the RFP.

1.2.4. Arithmetic conventions

All calculations should be rounded to two decimal places. If the third digit after the decimal point is 5 or higher, the same shall be rounded up. If the third digit is less than 5, the same shall be rounded down.

1.2.5. Priority of Agreements, Clauses, and Schedules

1.2.5.1. In case of inconsistency between the provisions of this Contract Agreement and the RFP, the terms of this Contract Agreement shall prevail to the extent of such inconsistency.

1.2.5.2. In case of ambiguities or discrepancies within this Contract Agreement, the following shall apply:

- (a) between two or more Clauses of this Contract Agreement, the provisions of a specific Clause relevant to the issue under consideration shall prevail over those in other Clauses.
- (b) between any two Schedules/Articles, the Schedule / Article relevant to the issue shall prevail.
- (c) between the written description on the drawings/design documents, if any, and the Specifications and Standards, the latter shall prevail; and
- (d) between any value written in numerals and that in words, the latter shall prevail.

1.2.6. Scope of Work

Under this Agreement, the scope of the Project shall mean and include:

1. **Design, Development and Implementation of the Vehicle Monitoring, Enforcement and Collection System** : Undertake the design, development, and implementation of an Vehicle Monitoring, Enforcement and Collection System at the listed in Schedule-A, with the provision of facilities as specified in Schedule-B, and ensure compliance with the Specifications and Standards outlined in Schedule-C.
2. **Operations & Maintenance:** Carry out the operations and maintenance of the Vehicle Monitoring, Enforcement and Collection System in accordance with this Agreement, adhering to the requirements specified in Schedule-C.
3. **Web based Application Portal** - The Bidder shall develop, implement, and maintain a web-based application/portal enabling real-time monitoring of system health, availability status, traffic counts (FASTag and Non-FASTag), and automated alerts in respect of downtime or malfunction of Vehicle Monitoring, Enforcement and Collection System (VMECS) equipment. The portal shall provide comprehensive access to transaction-level data of all detected vehicles, details of charges collected, reconciliation reports, e-notices issued, data received from VAHAN against records transmitted, and such other operational and enforcement-related parameters as may be required. The architecture and design of the portal shall be scalable, modular, and future-ready to accommodate technological advancements, system enhancements, and evolving functional requirements. The minimum functional and technical requirements of the web-based application/portal are specified under Clause 2.10 of Schedule C of this Agreement.
4. **Cleanliness and Maintenance of Control Center, Porta Cabin, Control Centre Building and Surrounding Areas:** The Bidder is responsible for maintaining cleanliness and upkeep of the Command Control Center, Porta Cabin, and surrounding areas for the entire contract duration. This includes implementing regular cleaning schedules, efficient waste management, and adherence to hygiene standards. Sufficient staff and resources must be deployed to ensure these facilities remain fully functional, clean, and presentable at all times. Regular inspections should be conducted to promptly address maintenance issues. The Bidder must also comply with relevant health and safety regulations, ensuring a clean and safe environment for all users.
5. **Data Security and Protection:** The Bidder shall ensure robust data security and protection measures in compliance with Government of India guidelines, including but not limited to the Information Technology (IT) Act 2000 and the Digital Personal Data Protection (DPDP) Act 2023, to safeguard user data, prevent unauthorized access, and maintain the integrity and confidentiality of all collected information.
6. **Performance and fulfilment of obligation:** Ensure the performance and fulfillment of the Bidder's obligations in accordance with the provisions of this Agreement, including all incidental or necessary activities required to meet the obligations under this Agreement.
7. **Electricity Power Management:**

- a) **Power Supply for Vehicle Monitoring, Enforcement and Collection System** : The Bidder shall be solely responsible for ensuring uninterrupted 24x7 power supply for the Vehicle Monitoring, Enforcement and Collection System (VMECS) Command-and-Control Centre and all Vehicle Monitoring, Enforcement and Collection System (VMECS) field equipment throughout the execution of the Works and the entire O&M period of the Contract. The primary source of power shall be supply from the Electricity Department, duly supported by UPS systems, renewable energy sources (such as solar power), and DG sets of adequate capacity. The Bidder shall make all necessary arrangements for electricity supply, including testing, commissioning, operation, and maintenance of all Vehicle Monitoring, Enforcement and Collection System (VMECS) components. There shall be no obligation on IHMCL to provide or facilitate any power or electricity supply or connections for any stage of the Project.
- b) **Lighting**: The Bidder shall ensure to maintain the existing lighting at Entry Locations for seamless operation and road safety.
- c) **Electricity Charges**: The bidder will bear all recurring electricity charges, including those for backup power sources.

1.2.7. Relationship between the Parties

Nothing in this Contract Agreement shall be interpreted to establish a relationship of master and servant or principal and agent between IHMCL and the Bidder. The Bidder, while performing the Services under this agreement, shall have full authority and responsibility over its personnel and representatives. The Bidder shall be solely accountable for the remuneration and statutory compliance concerning its employees, contractors, or representatives. IHMCL shall bear no liability with respect to the Bidder's personnel or representatives, and the Bidder shall indemnify IHMCL against any claims, liabilities, or obligations arising from such relationships.

1.2.8. Governing Law and Jurisdiction

This Contract Agreement shall be construed and interpreted in accordance with and governed by the laws of India, and the courts at Delhi shall have exclusive jurisdiction over matters arising out of or relating to this Contract Agreement.

1.2.9. Language

This Contract Agreement has been executed in English, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract Agreement.

1.2.10. Effectiveness of Contract

This Contract Agreement shall come into effect on the date the Contract is signed by both the Parties. The date, the Contract comes into effect is defined as the Effective Date.

1.2.11. Commencement of Services

The Bidder shall commence the services from the date of signing of Contract Agreement

with IHMCL.

1.2.12. Duration and Extension of Contract

The term of this Contract Agreement shall be **2 months for design, development & implementation of the Vehicle Monitoring, Enforcement and Collection System and 5 years for Operation and Maintenance (O&M)** phase, starting from the Effective Date, which shall be **extendable up to a period up to 2 years upon the satisfactory performance and as per requirement of IHMCL.**

Any additional implementation work awarded within the original Contract Period of 5 year and 2 months period will be incorporated into the implementation and O&M phases in such a way that the total original Contract duration does not exceed the initial 5 years and 2 months, unless an extension is granted by IHMCL.

1.2.13. Assignment

This Contract Agreement shall not be assigned by the Bidder to any person / agency except with the prior consent in writing of IHMCL and IHMCL shall be entitled to decline without assigning any reason whatsoever. Notwithstanding anything to the contrary contained in this Contract Agreement, IHMCL may, after giving 30 days' notice to the Bidder, assign and/ or transfer any of its rights, benefits and/or obligations under this Contract Agreement to an assignee who is, in the reasonable opinion of IHMCL, capable of fulfilling all IHMCL's then outstanding obligations under this Contract Agreement.

1.2.14. Severability

If for any reason whatsoever any provision of this Contract Agreement is or becomes invalid, illegal or unenforceable, or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality, or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to the Dispute Resolution Procedure set forth under this Contract Agreement or otherwise.

1.2.15. Notices

Any notice, request or consent required or permitted to be given or made pursuant to this Contract Agreement shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent to such Party at the address specified below. The mode of service of any notice shall be either courier or registered post or e-mail or fax or by hand.

The addresses for service of Notice shall be:

IHMCL: Chief Operating Officer

Address: Indian Highways Management Company Limited, 2nd Floor
, Sector-09, Dwarka, New Delhi - 110077

E-mail: tenders@ihmcl.com & coo@ihmcl.com

Bidder:

Attention:

Address:

E-mail: ...

1.2.16. Time Schedule

Sl. No.	Activity	Time period
1.	Date of signing of Contract Agreement	T0
2.	Design, Development & Implementation of FASTag-ANPR based Vehicle Monitoring, Enforcement and Collection System and Offer for Site Acceptance Testing (SAT) with an intimation for "Go-Live" readiness at all Entry locations	01 Months 20 Days
3.	Conduct of Site Acceptance Testing as per RFP (3 days' trial) and closure/rectification of all punch list/observations by IHMCL	02 Months
4.	"Go-Live" of Vehicle Monitoring, Enforcement and Collection System , subject to successful completion of SAT	02 Months
5.	Operation & Maintenance Period	Five (05) Years from the date of Go-Live

1. Go-Live Definition –

"Go-Live" of the Vehicle Monitoring, Enforcement and Collection System shall refer to the official commencement of live operations under actual traffic conditions at the designated site, along with complete deployment and readiness of all Vehicle Monitoring, Enforcement and Collection System (VMECS) system components—including field hardware, application software, central back-office systems, and on-site operational teams. The Vehicle Monitoring, Enforcement and Collection System (VMECS) system must be fully functional, with end-to-end integration of all modules and seamless interoperability with external interfaces with VAHAN, NPCI, TMCC, payment gateway(s), as per requirements. Go-Live shall be deemed achieved only upon confirmation that all subsystems meet the defined performance criteria and compliance requirements as stipulated in the contract. For avoidance of doubt, "Go-Live" shall be considered successful only after acceptance of SAT.

1.2.16.1. Site Acceptance Testing

- i. After successful completion of successful implementation of Vehicle Monitoring, Enforcement and Collection System (VMECS) facility, the successful bidder shall make a formal request to IHMCL for Site Acceptance Testing (SAT) duly mentioning the start date of SAT, in consultation with IHMCL. The formal request shall include all the required

documentation, test certificates, evidence for installation etc.

- ii. The SAT shall be conducted for the parameters mentioned in Clause 1.2.16.3 below. The SAT shall be considered successful only if it meets all the requirement description mentioned in table under Clause 1.2.16.3.
- iii. The successful bidder shall get maximum duration as per specified under SI # 3 of Clause 1.2.16 above for completion of SAT. This includes initial trial, rectification of punch list of SAT, refinements and adjustments of the solution, and second trial in line with SI no. (v) below.
- iv. Post receipt of Offer for Site Acceptance Test (SAT) by the Acquirer Bank, IHMCL or its designated representatives shall conduct the SAT at the respective site. The Acquirer Bank, along with its sub-contractors, shall extend full support and facilitate the demonstration of all required functional and performance parameters of the deployed Vehicle Monitoring, Enforcement and Collection System (VMECS) solution, as stipulated in the scope of work and technical specifications.
- v. If the Acquirer Bank/Bidder fails to meet the required performance parameters during SAT trial run, a period of Seven (07) days (Cure Period) shall be granted for necessary refinements and adjustments to its solution. Following this refinement period, a second round of SAT shall be conducted. If the Acquirer Bank is unable to demonstrate compliance with the required parameters in the second round of testing, the SAT shall be considered as unsuccessful. For avoidance of doubt, this Cure Period shall mean the same as mentioned in Clause 1.2.33 (2).

1.2.16.2. Consequences of Unsuccessful SAT

- i. In the event that the Bidder/Contractor fails to achieve successful Site Acceptance Test (SAT) at all locations as stipulated under this Agreement, the cash component of the Performance Security specified under Clause 6.5 shall stand forfeited plaza, provided Extension of Time is granted for any location(s) in accordance with Clause No 1.2.17.2 of Contract Agreement.
- ii. The Parties expressly agree and acknowledge that the forfeiture of cash performance security as per clause 1.2.16.2(ii) does not constitute a penalty, but represents a fair, genuine and reasonable pre-estimate of the costs, losses, damages, expenses and administrative efforts incurred or likely to be incurred by IHMCL as a consequence of the Bidder's failure to achieve successful SAT.
- iii. The Acquirer Bank shall be responsible for dismantling and removing all equipment, hardware, and associated infrastructure installed at the site, at its own cost and within the timeline specified by IHMCL.
- iv. The Acquirer Bank shall also be required to restore the site to its original condition, ensuring that no damage, debris, or residual materials remain. All restoration activities must be carried out to the satisfaction of NHAI/IHMCL.

1.2.16.3. Parameters to be checked during Site Acceptance Testing (SAT)

The following high-level parameters shall be evaluated during the Site Acceptance Test (SAT). IHMCL reserves the right to provide further specifications or details regarding any of the requirements outlined in this RFP, as deemed necessary.

OEM certificates, Quality Report (Prior to Acceptance Testing)

The bidder shall submit reports / certificates from OEM / System Integrator (SI) certifying quality, performance accuracy including:

1. Performance (of ANPR Camera, RFID Reader, Radar and VMECS Application) under various scenarios e.g., fog, rain, glare, low illumination, high-speed, lane-switching, skewed -multilingual – non-standard plates, and all vehicle classes.
2. Verification of vehicle crossings count as obtained from various field devices – e.g., RFID Reader, ANPR Camera, RADAR.
3. System resiliency and recovery in event of network / server / system failure.
4. Submit performance reports demonstrating receiver sensitivity (in dBm), read-rate reliability (tags read per second), adjacent-lane interference rejection, and carrier/noise interference suppression under standardized test conditions.

During Site Acceptance Testing (SAT), bidders shall demonstrate deployment effectiveness, including antenna and camera alignment, beam directionality, IR/EIRP optimization, and overall read reliability under live traffic conditions.

SI #	Parameters	Requirements Description
1)	Vehicle count accuracy	<p>Assessment of the proposed Vehicle Monitoring, Enforcement and Collection System capability to achieve the vehicle count accuracy levels defined in the RFP under clause Schedule B, Clause 10, SL no. 5.</p> <p>The vehicle count accuracy shall be validated through the TMS report of the plaza. IHMCL may also validate the same with an independent system.</p>
2)	Vehicle classification accuracy	<p>Evaluation of the Vehicle Monitoring, Enforcement and Collection System ability to correctly classify all vehicles passing through the gantry as per the vehicle classification norms defined in the RFP under clause Schedule B, Clause 10, SL no. 6.</p> <p>The classification of the vehicles shall be as National Highways Fee (Determination of Rates and Collection) Rule 2008 as below:</p>

SI #	Parameters	Requirements Description						
		<p>³[Type of Vehicle</p> <table border="1" data-bbox="643 344 1441 613"> <tr> <td>Car, Jeep, Van or Light Motor Vehicle</td> </tr> <tr> <td>Light Commercial Vehicle, Light Goods Vehicle or Mini Bus</td> </tr> <tr> <td>Bus or Truck (Two Axles)</td> </tr> <tr> <td>Three-axle commercial vehicles</td> </tr> <tr> <td>Heavy Construction Machinery (HCM) or Earth Moving Equipment (EME) or Multi Axle Vehicle (MAV) (four to six axles)</td> </tr> <tr> <td>Oversized Vehicles (seven or more axles)</td> </tr> </table> <p>The vehicle classification accuracy shall be validated through the reports generated from site level system and Command Control Central system. IHMCL may also validate the same with an independent system.</p>	Car, Jeep, Van or Light Motor Vehicle	Light Commercial Vehicle, Light Goods Vehicle or Mini Bus	Bus or Truck (Two Axles)	Three-axle commercial vehicles	Heavy Construction Machinery (HCM) or Earth Moving Equipment (EME) or Multi Axle Vehicle (MAV) (four to six axles)	Oversized Vehicles (seven or more axles)
Car, Jeep, Van or Light Motor Vehicle								
Light Commercial Vehicle, Light Goods Vehicle or Mini Bus								
Bus or Truck (Two Axles)								
Three-axle commercial vehicles								
Heavy Construction Machinery (HCM) or Earth Moving Equipment (EME) or Multi Axle Vehicle (MAV) (four to six axles)								
Oversized Vehicles (seven or more axles)								
3)	ANPR Camera Accuracy	<p>The ANPR camera system should read all types of vehicle registration number (VRN) plates with minimum accuracy of 97% under both day and night conditions, without any manual validation/audit.</p> <p>The bidder shall be solely responsible of deployment of any additional arrangement e.g. lighting etc. to achieve the desired accuracy.</p> <p>Note:</p> <ol style="list-style-type: none"> 1. The 97% ANPR accuracy refers to the ANPR system's overall performance, considering recognition from either the front or rear license plate. Number plates that are "humanly not readable" shall be excluded from the total count used for accuracy calculation. 2. A license plate shall be considered "humanly not readable" if its alphanumeric characters cannot be accurately identified by a person with normal vision under standard daylight or lighting conditions, due to factors such as physical damage, obstruction (e.g., mud, dust, stickers), tampering, or any deliberate alteration that renders the plate illegible to the naked eye. 3. ANPR Accuracy shall be evaluated and reported across diverse real-world test scenarios - including fog, rain, glare, low illumination, multilingual and non-standard plates, high-speed and lane-switching vehicles, and plates at varied tilt or skew angles across all vehicle classes. Front-rear plate correlations shall be validated for each scenario to ensure end-to-end consistency and eliminate false associations. The 						

SI #	Parameters	Requirements Description
		<p>accuracy percentages shall be independently reported by the vendor and approved by IHMCL for every defined test condition.</p> <p>4. “Humanly Not Readable” shall not exempt instances such as low-light readability, skewed or angled plates, fog, rain, or glare conditions that can be effectively addressed through IR illumination, multi-angle or dual-camera capture, HDR imaging, AI-based enhancement techniques or any other technology. Any such instances shall be explicitly reported by the vendor.</p> <p>5. Total vehicle crossings shall be cross-verified across all detection sources — ANPR, RFID, and Lane Counters. Any vehicle missed by ANPR due to camera frame delay, frame loss, latency, or system overload shall be explicitly reported, treated as an accuracy shortfall and reflected in the reported ANPR performance metrics.</p>
4)	API integration with NPCI for transaction processing	<p>The proposed VMECS should be able to integrate into NPCI system as per process flow diagram provided in the RFP. The integration shall be as per the draft Technical Specification Document circulated by NPCI.</p> <p>Verification of seamless integration of the VMECS with NPCI’s infrastructure as per the process flow and draft Technical Specification Document provided in the RFP, including successful API communications, authentication, and transaction processing protocols.</p> <p>It should be possible to create a transaction from a valid functional FASTag and VRN plate from a vehicle crossing the VMECS gantry at a high speed (greater than 100 km/hr). The transaction should be verifiable from NPCI system.</p> <p>Parameters shall be checked as below:</p> <ul style="list-style-type: none"> • Verification of successful FASTag transactions captured by the VMECS, including correct matching of vehicle passages with FASTag IDs and VRN. • Accuracy and completeness in capturing transaction data, including date, time, plaza code, vehicle class, transaction amount, and unique transaction identifiers.

SI #	Parameters	Requirements Description
5)	API integration with VAHAN through NIC	<p>API integration with VAHAN and SAARTHI App, retrieving vehicle-related information, including but not limited to the following:</p> <ul style="list-style-type: none"> • Vehicle Registration Number • Vehicle Class / Category • Commercial / Non-Commercial • Fuel Type • Number of Axle • Gross Vehicle Weight • Bharat Stage (BS) Emission Standard • Vehicle Make, Model and Color • Fitness Validity • Insurance Validity • Pollution Validity • Registration Validity
6)	Generation of e-Notice	<p>The proposed VMECS solution shall have the capability to generate and raise e-Notices through secure API integration with NPCI and NIC by transmitting all required transaction details, vehicle information, and evidentiary images in accordance with prescribed API specifications and authentication standards.</p> <p>The system shall automatically issue e-Notices for all eligible vehicles, including vehicles without FASTag and vehicles with insufficient FASTag balance, as per applicable rules and logic.</p> <p>The solution shall ensure reliable handling of API responses, including acknowledgments, errors, timeouts, retries, and exceptions, with proper logging and audit trail. It shall be capable of operating effectively under varying network conditions and peak load scenarios without loss of eligible transactions.</p>
7)	Payment reconciliation for successful FASTag transactions and e-Notices	<p>The proposed VMECS solution should be able to ensure accurate reconciliation and validation of financial transactions. Validation of successful posting of transaction details to the NPCI system</p>

SI #	Parameters	Requirements Description
		<ul style="list-style-type: none"> • Correct identification and categorization of transactions (unsuccessful or rejected/failure to pay etc). • Accuracy and reliability of cases of e-Notice generation for non-FASTag transactions, including correct vehicle identification based on VRN & Tag ID, timestamping, penalty calculation, and image/evidence details. • Confirmation that e-Notices are generated, dispatched, tracked, and archived appropriately as per defined business rules. • System capability to generate reconciliation reports with detailed insights into matched and unmatched transactions, including discrepancies or errors. • Vendors shall adequately dimension all subsystems and ensure that the end-to-end VMECS system, including the Transaction Engine and Reconciliation Engine, is sized to handle at least twice (2×) the current peak traffic at all gantry location. This capacity provisioning is intended to ensure that the overall system operates at no more than 80% utilization, even after accounting for future traffic growth and load variations.
8)	Reporting/MIS	Confirmation of comprehensive audit trails, robust traceability of transaction reconciliation processes, and the capability to generate detailed reconciliation reports highlighting matched, unmatched, or erroneous transactions, e-notices cases.

1.2.17. Damages

1.2.17.1. Damages for Delay in completion of work

Refer to Section Service Level Agreements (SLA), in the RFP Schedule B Section 10 (Sr.No.1).

1.2.17.2. Extension of Time (EOT)

- i. The Bidder may request an extension of time beyond the binding completion schedule if it encounters unforeseen circumstances or events beyond its control that materially and significantly impact its ability to meet the deadline.
- ii. The Bidder shall submit a written request for the extension, detailing the reasons for the delay and providing supporting documentation, to IHMCL within a reasonable time frame after becoming aware of the delay.
- iii. IHMCL shall review the extension request and may grant an extension if it deems the reasons provided by the Bidder to be valid and justifiable.

- iv. If the Bidder fails to request an extension of time within thirty (30) days from the date of occurrence of the delay-causing event or if the delay is not attributable to reasons beyond its control, the request of the Bidder will not be considered by IHMCL.
- v. The Bidder shall not be entitled to any extension of time or relief from damages for delays caused by its own negligence, inadequate planning, insufficient resources, or failure to adhere to project timelines.
- vi. The decision of IHMCL regarding extension requests and imposition of damages shall be final and binding on the Bidder, subject to dispute resolution mechanisms as outlined in the Contract Agreement.

1.2.17.3. Damages for Non-Compliance to Safety Standards at site

Failure by the Bidder's personnel in maintaining the safety standards at the site as per Schedule-C at any time shall attract damages on every instance noticed by the IHMCL (or its representatives).

- a. Staff working without safety gears – damages of INR 10,000/- per instance. In the case of repeated instances by the same staff member of the Bidder, the damages shall be doubled per instance. The Bidder shall have to Replace the repeated offenders / personal (safety lapses more than thrice) with immediate effect.
- b. Improper safety measures at site, safety hazard to the commuters due to poor workmanship, etc. working during low visibility hours or at night time without proper safety measures, warning signages and lighting/ improper traffic diversion / non-standard warning signages etc. / unauthorized lane closure / traffic rule violation – minimum damages of INR 1,00,000/- per instance shall be imposed on recommendation of the IHMCL (or its representatives). In cases of repeated instance, the penalty shall be doubled per instance. The Bidder shall have to Replace the repeated offenders / personal (safety lapses more than twice) with immediate effect. IHMCL shall also take legal action against the errant staff / sub-contractor (SI) of the Bidder, as such safety lapses may lead to major safety concerns / hazards for the road users as well as the workers

1.2.17.4. Damages for non-adherence of Service Level Agreement (SLA)

- a. Non-Adherence of SLA during the O&M period would result in damage mentioned in Schedule-B of the Agreement. The damage will be recovered as defined under clause 1.2.19 of the General Conditions of the Contract.
- b. During the Contract Agreement, every first week of the Quarter, the Bidder is obligated to make an inventory of the items presented and provide a copy to IHMCL. Furthermore, the Bidder shall provide an undertaking attesting to the presence and functionality of all required items as per the Technical Bid, accompanied by the necessary documentary evidence to support this claim.
- c. To verify the undertaking or even otherwise, every quarter, IHMCL or its representative can do an inventory or inspection of the items that are to be

present and working as per the technical bid. If technical requirements are not found to be met, IHMCL can pause the calculation payments until all technical requirements are met again. In such cases, IHMCL will eliminate the paused period and make prorated payments for that quarter.

1.2.18. Payments

- (a) The payment shall be made based on the Fixed Per Transaction Cost (in Rs.), as specified in the Bidder's Financial Bid Form F-1 and accepted by the Authority, in consideration of the obligations outlined in this Agreement subject to clause 1.2.19.
- (b) Under no circumstances shall the value quoted by the Bidder be revised upwards, even if there is an increase in any tax, statutory, or financial liability of the Bidder that was not in existence or prevalent at the time of bid submission.
- (c) The Fixed Per Transaction Cost (in Rs.) in the financial bid, unless otherwise specified in the Contract Agreement, shall cover all the Bidder's responsibilities for the works outlined in this Agreement, including all essential, desirable, and obligatory items for the Implementation, operation, and maintenance of the Vehicle Monitoring, Enforcement and Collection System. This shall be done without compromising on the quality standards specified in the Contract Agreement, Good Industry Practice, and any official memos, circulars, or notices issued or to be issued by IHMCL/NHAI/MoRTH, which are relevant to the scope of this Contract Agreement, as well as the remedying of any defects in the Vehicle Monitoring, Enforcement and Collection System.

1.2.19. Payment Terms

- 1) The Bank shall be entitled to receive quarterly payment and weekly payment in accordance with the following terms:

a) Quarterly Charges for Vehicle Monitoring, Detection and Validation

- I. The Bank shall be paid Vehicle Monitoring, Detection and Validation Charges calculated as under:

$$\text{Total Eligible Payment} = \text{Fixed Per Transaction Cost} \times N$$

Where:

N = Total number of *M and N category vehicles*, as defined under the Central Motor Vehicles Rules, 1989, detected by the VMECS and successfully validated in accordance with Clause 1(d) of Schedule-B of this Contract Agreement.

II. Minimum Guaranteed Transaction Volume

Notwithstanding anything contained elsewhere in this Clause, where the value of **N** for any given day is less than **4,50,000**, the value of **N** for the purpose of total eligible payment computation shall be deemed to be **4,50,000 transactions**, provided that the applicable Service Level Agreements (SLAs) relating to Vehicle Count and Classification, as specified under Schedule-B, are fully complied with for that day at each relevant location.

III. Submission and Processing of Invoices

- a) The Bank shall submit quarterly invoices to IHMCL in hard copy, accompanied by a formal forwarding letter and complete supporting documentation substantiating the total number of vehicles detected and validated during the invoiced period.
- b) Invoices shall be submitted to IHMCL after completion of each quarter and not later than the 7th day of the month immediately succeeding the relevant quarter. Invoices shall be processed only upon receipt of a complete and accurate set of physical documents, unless otherwise expressly permitted by IHMCL in writing.

b) Weekly settlement payment as Percentage Share of Charges Collected from Notified Eligible Vehicles

I. Eligibility for Percentage Share

In addition to the charges payable under sub-clause 1.2.19 (1)(a) above, the Bank shall be entitled to receive an amount equivalent to 0.25% (zero-point two five percent) of the total charges collected through FASTag from Eligible Vehicles notified by the Authority, which are successfully settled into the designated bank account as specified by IHMCL as per the following mechanism:

a. Weekly Settlement Mechanism

For the purpose of settlement of charges collected from eligible vehicles, the Acquirer Bank shall deposit the collected charges for the period commencing from **Tuesday (00:00:00 hrs) of the preceding week and ending on Monday (23:59:59 hrs)** into the bank account designated by the Authority, **after deducting its eligible share of 0.25%**, as specified above.

Such settlement shall be done through **RTGS**, on all **365 days**, except on such bank holidays as may be declared by the Reserve Bank of India (RBI).

II. Entitlement for e-Notice Cases

The Bank shall further be entitled to receive an amount equivalent to 0.25% of the total charges collected from eligible vehicles for which e-notices have been issued, subject to strict compliance with the provisions of the e-Notice Module in Schedule-B and the following conditions:

- a. All e-notices issued by the Bank shall be accurate, complete, and legally valid, and the Bank shall bear full responsibility and liability for the correctness and integrity of their content.
- b. No grievance, dispute, or complaint shall be pending against such e-notices.

III. Adjustment of e-Notice Entitlement

The eligible payment in respect of e-notice cases shall be adjusted by the Bank from the charges collected from notified vehicles under sub-clause (b)(II) above only after expiry of fourteen (14) days from the date of issuance of the relevant e-notice. For the avoidance of doubt, the payout for eligible e-notice cases authorized during Week-1 shall be adjusted from the collected applicable charges during Week-3, subject to compliance with the applicable SLAs

governing e-notice issuance and processing.

IV. The Weekly Settlement Payment under Clause 1.2.19 (1) (b) shall be payable only upon issuance of a formal notification by the Competent Government Authority, for levy and collection of charges from any notified category of vehicles; and the payment at the rate of 0.25% specified therein shall constitute the full and final compensation to the Bank towards processing of notified user charges and issuance and handling of e-Notices, as applicable. For the avoidance of doubt, the Weekly Settlement Payment shall be payable only for the period and to the extent specifically covered under such Government notification, and no Weekly Settlement Payment shall be due or payable in the absence of issuance of such notification.

2) SLA Computation and Penalty Adjustment

Service Level Agreement (SLA) performance shall be assessed on a monthly basis. Any penalties arising from SLA non-compliance shall be adjusted against the quarterly invoices submitted by the Bank.

3) Recovery of SLA Penalties and Performance Security

The Acquirer Bank shall remit any SLA penalty amount within three (3) working days from the date of receipt of intimation from IHMCL. In the event of failure to do so, IHMCL shall be entitled to recover the penalty amount from the Cash Performance Security. Upon such recovery, the Bank shall replenish the Cash Performance Security to the prescribed level within three (3) working days. Failure to replenish within the stipulated period shall entitle IHMCL to recover the amount by encashment of the Performance Bank Guarantee, which shall be deemed a material breach of the Contract Agreement, without prejudice to any other rights or remedies available to IHMCL.

1.2.20. Deleted

1.2.21. Change of Scope

- a) Bank shall be entitled for additional payment over and above the Fixed Per Transaction Cost only in case of Change of Scope order is given by IHMCL. Change of Scope will be initiated in the following cases only after written instructions from IHMCL or its representative:
 - i. Installation of Vehicle Monitoring, Enforcement And Collection System(VMECS) Solution at any other location other than mentioned in Schedule-A. For avoidance of doubt, any variation in quantity(ies) of gantries, equipment, support system, OFC, Civil/Mechanical Works, Software/Hardware etc. of Vehicle Monitoring, Enforcement And Collection System(VMECS) tolling solution or any software/App upgradation works mentioned in Schedule-C to meet the scope of work and SLA parameters shall not constitute any Change of Scope.
- b) The estimate of any Change of Scope Work due to the condition mentioned above shall be derived as per mutually agreed terms based on Good Engineering Practice.

- c) Upon receipt of written instruction from IHMCL or its representative, the bank shall submit the Change of Scope proposal within 15 days duly including the estimate, design drawing of the work along with functional and technical specifications and time required for completion of the additional work, to IHMCL or its representative for issue of the Change of Scope Order.

1.2.21.1. Change Control Note (CCN)

- a) This applies to and describes the procedure to be followed in the event of any proposed change to contract, site Implementation, and Service levels. Such change shall include, but shall not be limited to, changes in the scope of services provided by Successful bidder and changes to the terms of payment.
- b) Change requests in respect of the contract, the site implementation, or the Service levels shall emanate from the Parties' representative who shall be responsible for obtaining approval for the change and who shall act as its sponsor throughout the Change Control Process. CCNs shall be presented to the other Party's representative who shall acknowledge receipt by signature of the authorized representative of the IHMCL.
- c) Successful bidder and Authority while preparing the CCN, shall consider the change in the context of whether the change is beyond the scope of Services including ancillary and concomitant services required.
- d) The CCN shall be applicable for the items which are beyond the stated/implied scope of work as per the RFP document.

1.2.22. Project Administration

CEO, IHMCL shall be administrator of the Contract. For acceptance and finalization of the services and of other deliverables IHMCL/NHAI may appoint a Supervision Consultant or any official of IHMCL/NHAI to act on its behalf.

1.2.23. Audit

- i. IHMCL/NHAI at its sole discretion may conduct regular /forensic audit of the services under this Contract Agreement. The Bank shall cooperate and provide all required documentation, access to IT system during such audit, failing which, it shall be considered as breach of Contract Agreement on part of Bidder under Clause No. 1.2.32(p).
- ii. NHAI/IHMCL reserves the right to install or appoint any third party to install additional infrastructure, such as a separate gantry, cameras, or any other equipment, to facilitate third-party audits. This infrastructure may be deployed to independently verify data, monitor operations, or ensure compliance with service level agreements (SLAs). The successful bidder shall provide all requisite support to the third-party facility such as Power, Integration with successful bidder solution etc. without any additional cost to NHAI/IHMCL.

1.2.24. Fraud and Corruption

1.2.24.1. Definitions

It is IHMCL's policy that IHMCL as well as bidder observe the highest standard of ethics during the selection and execution of such contracts. In pursuance of this policy, IHMCL defines, for the purpose of this provision, the terms set forth below as follows:

- i. "Corrupt practice" means the offering, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of a public official in the selection process or in contract execution.
- ii. "Fraudulent practice" means a misrepresentation or omission of facts to influence a procurement process or execution of a contract with IHMCL; and includes collusive practice among bidders, prior to or after bid submission, designed to establish bid prices at artificially high or non-competitive levels and to deprive IHMCL of the benefits of free and open competition.
- iii. "Collusive practices" means a scheme or arrangement between two or more bidders, with or without the knowledge of IHMCL, designed to establish prices at artificial, non-competitive levels.
- iv. "Coercive practices" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in a procurement process or affect the execution of a contract.
- v. "Unfair trade practices" means supply of services different from what is ordered on, or change in the Scope of Work which was not agreed to; and
- vi. "Restrictive practices" means forming a cartel or arriving at any understanding or arrangement among bidder(s) with the objective of restricting or manipulating a full and fair competition in the bidding process.

1.2.24.2. Measures to be taken by IHMCL.

- a) IHMCL may terminate the contract if it determines at any time that representatives of the Bidder were engaged in corrupt, fraudulent, collusive or coercive practices during the selection process or the execution of that contract, without the Bidder having taken timely and appropriate action satisfactory to IHMCL to remedy the situation; and
- b) IHMCL may also sanction against the Bidder, including blocklisting or declaring the Bidder ineligible, either indefinitely or for a stated period, to be awarded a contract if it at any time determines that the Bidder has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or executing a contract with IHMCL.

1.2.25. Confidentiality of the Assignment/Findings

- (a) During the term of this Contract Agreement and for three years following its expiration or termination, the Bidder shall not divulge or authorize the disclosure of the services, this Contract Agreement, or the business or operations of IHMCL to a third party without

IHMCL's prior written consent. This excludes its agents, consultants, or sub-contractors (SI) who require the information for the purpose of performing its duties under the Contract Agreement. The Bidder must ensure that such agents, consultants, or sub-contractors (SI) are bound to preserve the complete confidentiality of any Proprietary and Confidential Information of IHMCL.

- (b) The Bidder and its personnel shall use such Proprietary Information only for the purpose for which it was disclosed and shall not use or exploit such Proprietary Information for its own benefit or the benefit of another without the prior written consent of the IHMCL. Without limitation of the foregoing, Bidder shall not cause or permit reverse engineering of any Proprietary Information or recompilation or disassembly of any information or software programmes that are part of the Proprietary Information received by it under this Contract Agreement. For the purposes of this Contract Agreement - Proprietary Information shall include, but not be limited to, strategies, official secrets, actual and anticipated research, developments or plans, services, software, source codes, inventions, processes, discoveries, formulas, architectures, concepts, ideas, designs, drawings, personnel, financial information, demonstrations, operations, records, assets, technology, data, and information derived, whether existing or derived or analysed out of the information made available to the Bidder in the form of raw data or reports, in any form whatsoever.
- (c) The Bidder alone shall be responsible for ensuring the maintenance of confidentiality as contemplated above and shall be responsible for employing sufficient measures to prevent any unauthorised access to the Proprietary Information.

1.2.26. Insurance cover to be maintained.

- (a) The Bidder shall ensure to maintain proper insurance coverage of all the equipment, materials, establishment against fire, theft, vandalism or any other perceived risk(s) / natural disaster etc. during the entire duration of the contract period. It shall sole responsibility of bidder to claim the insurance and replace the damaged component or system during contract period.
- (b) In addition to material and equipment, the Bidder shall also ensure to have adequate insurance for all its personal working/ deployed under this Contract Agreement. The insurance shall also fully cover the personnel / workers / laborers of sub-contractors (SI). In case any worker / laborer claim is not covered by the insurance company, the Bidder shall be responsible for covering the entire expenses for medical, transportation, wages, compensation etc. of the personnel in case of any incident / accident/ mishap / death, or a claim by the third party etc. Suitable compensation shall be paid by the Bidder to the personnel deployed at the project in case of any incident / accident/ mishap / death, etc. if any happened on the site/ project or in transit, irrespective of thereason. Hence the insurance policy shall be comprehensive and shall cover all types of risks and compensation.
- (c) The Bidder shall fully indemnify IHMCL against any damage/ loss of property or personnel of Bidder working on any site under this Contract Agreement.
- (d) The Bidder shall submit copies of the insurance policies to IHMCL within 15 days of

Contract Signing, and renewal policy within 15 days of the expiration of the policy until the end of the Contract period. A penalty of INR 10,000 shall be levied on the Bidder for each working day from the due date of submission or expiry of the insurance policy documents till the actual date of submission.

1.2.27. Labour Laws

- (a) The Bidder shall obtain all relevant labor registrations and comply with all relevant labor laws applying to its employees and shall duly pay them and afford them all their legal rights.
- (b) The Bidder shall make all deductions of tax at source and all contributions to the Payment of Gratuity, Provident Fund (including Employees' contribution) and Employees' State Insurance Scheme as may be required by Applicable Laws and deposit the aforesaid contributed amount with the appropriate authority/(s).
- (c) The Bidder shall require all personnel engaged in the work to obey all Applicable Laws and regulations. The Bidder shall permit the Authority to witness labor payments for the Bidder direct labor or the sub-contractors'(SI) labor. The Bidder shall ensure that all its sub-contractors (SI) strictly comply with all labor laws.
- (d) Documentary evidence confirming the above compliance, as may be required from time to time, shall be provided to the IHMCL's Representative.
- (e) IHMCL shall not be liable for any delay or default of the Bidder in compliance with the labor laws.

1.2.28. No partnership

This Contract Agreement shall not be interpreted or construed to create an association, joint venture, or partnership between the Parties, or to impose any partnership obligation or liability upon either Party and neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or act as an agent or representative of, or to otherwise bind, the other Party.

1.2.29. Intellectual Property Rights

All Intellectual Property of the respective Parties shall continue to vest with the respective Party and one Party may make use of the Intellectual Property only with the express consent of the other Party. However, it is agreed and acknowledged by the Bidder that intellectual property rights in the Proprietary Information as well as any other data or information/ reports generated during the performance of services contemplated herein by the Bidder shall always vest with IHMCL and Bidder or its employee, agent, official, sub-contractor (SI) will not have any right in such IPR whatsoever.

1.2.30. Force Majeure Events

- 1.2.30.1. Neither party shall be responsible to the other for any delay or failure in performance of its obligations due to any occurrence of a Force Majeure event which is

beyond the control of any of the Parties, including, but without limited to, fire, flood, explosion, acts of God or any governmental body, public disorder, riots, embargoes, or strikes, acts of military authority, epidemics, strikes, lockouts or other labour disputes, insurrections, civil commotion, war, enemy actions.

1.2.30.2. If a Force Majeure arises, the Service Provider shall promptly notify IHMCL in writing of such condition and the cause thereof. Unless otherwise directed by IHMCL, the Service Provider shall continue to perform his obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event. The Parties shall be excused from performance of their respective obligations in whole or part as long as such Force Majeure event continues to prevent or delay such performance by the Parties. However, in case such Force Majeure event lasts for a continuous period of 60 days, either Party may terminate the Contract.

1.2.31. Dispute Resolution

Dispute resolution procedure shall be as mentioned in Clause 6.6 of the RFP.

1.2.32. Events of default by the Bidder

The failure on the part of the Bidder to perform any of its obligations or comply with any of the terms of this Contract shall constitute an Event of Default on the part of the Bidder. The events of default as mentioned above may include inter-alia of the following:

- a. the Bidder fails to provide, extend, or replenish the Performance Security in accordance with this Agreement.
- b. the Bidder abandons or manifests intention to abandon the implementation or O&M of the Project without the prior written consent of the Authority.
- c. the Project Completion Date does not occur within the period specified in RFP Clause 1.2.12 for the Scheduled Completion Date, or any extension thereof accorded under Clause 1.2.12.
- d. the Bidder fails to rectify any Defect, the non-rectification of which shall have a Material Adverse Effect on the Project, within the time specified in this Agreement or as directed by the Authority.
- e. the Bidder fails to complete successful SAT as per Clause 1.2.16.1.
- f. the Bidder creates any Encumbrance in breach of this Agreement.
- g. an execution levied on any of the assets of the Bidder, or if a trustee or receiver is appointed for the Bidder or for the whole or material part of its assets that has a material bearing on the performance of the Bidder under the Contract Agreement.
- h. the Bidder is adjudged bankrupt or insolvent, has been, or is in the process of being liquidated, dissolved, wound-up.
- i. the Bidder has been or is in the process of being amalgamated or reconstituted in a manner that would cause, in the reasonable opinion of the Authority, a Material Adverse Effect or would be in breach of the terms of the Contract Agreement.
- j. any representation or warranty of the Bidder herein contained which is, as of the date

hereof, found to be false or that the Bidder is at any time hereafter found to be in breach or non-compliance thereof.

- k. the Bidder submits to the Authority any statement, notice or other document, in written or electronic form, which contains false contentions/ information and can potentially adversely impact the Authority's rights, obligations or interests if accepted on its face value.
- l. the Bidder has failed to fulfil any obligation, for which failure Termination has been specified in this Agreement.
- m. the Bidder commits a default in complying with any other provision of this Agreement if such a default causes a Material Adverse Effect on the Project or on the IHMCL.
- n. the Bidder fails to deposit the collected Charges in designated bank account within timeline defined in Payment Terms.
- o. In case bidder fails to complete Hand Over Take Over (HOTO) activities during the contract period, as per Clause 1.2.36.
- p. The bidder's refusal to allow or failure to support the conduct of a forensic audit or IT system audit of their Vehicle Monitoring, Enforcement and Collection System.
- q. The bidder fails to submit Acquirer Bank certification under the FASTag NETC Programme from NPCI within 90 days from the date of issuance of Letter of Award (LOA).
- r. The bidder fails to meet SLA as mentioned in the Contract Agreement.
- s. Gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission, or other thing of value, as an inducement or reward:
 - i. for doing or forbearing to do any action in relation to the Contract, or
 - ii. for showing or forbearing to show favor or disfavor to any person in relation to the Contract, or
 - iii. if any of the Bidder's personnel, agents, or sub-contractors (SI) give or offer to give (directly or indirectly) to any person any such inducement or reward as is described in this sub-paragraph (o). However, lawful inducements and rewards to Bidder's Personnel shall not entitle termination.

1.2.33. Consequences of Default

Where an Event of Default subsists or remains uncured then IHMCL shall be entitled to:

- 1) Impose any such obligations and conditions and issue any clarifications as may be necessary to inter alia ensure smooth continuation of project and the Services which the Bidder shall be obliged to comply with. The Bidder shall in addition take all available steps to minimize is resulting from such event of default.
- 2) Notwithstanding anything stated in this Contract Agreement, in the event of any defaults on part of the Bidder, IHMCL shall issue a notice to the Bidder (hereinafter referred to as Cure Period Notice) setting out specific defaults / deviances / omissions / non-compliances / non-performances and providing a notice of Seven (07) days ("Cure Period") to enable such defaulting party to remedy the default committed. If the Bidder fails to cure the default within the Cure Period, as stated in the Cure Period Notice, the Bidder shall be deemed to be in default of this Contract Agreement, unless the default

has occurred solely as due to Force Majeure or for reasons not attributable to the Bidder. The Cure Period under this Clause shall be calculated from the date of receipt of the notice by the Bidder or when the default comes into the knowledge of the Bidder, whichever is earlier. If the Bidder fails to remedy the default after lapse of Cure Period notice, the contract is liable to be terminated by IHMCL.

- 3) In the event that the Authority issues a notice to the Bank pursuant to a breach of the Contract under Clause No. 1.2.32 of the Contract Agreement, the Bank shall be obligated to deposit the entire charges collected into the designated account of IHMCL within T+1 working day. For the avoidance of doubt, from the date of issue of notice for the breach, the Bank's entitlement to Fixed Per Transaction Cost and the 7-day float shall remain suspended until the breach is fully remedied to the satisfaction of the Authority. Furthermore, the Authority reserves the right to implement alternative arrangements for the collection of applicable charges from eligible vehicles as notified by government.

1.2.34. Termination

- (a) Without prejudice to any other rights or remedies which the Authority may have under this Agreement, upon occurrence of a Bidder Default, the Authority shall be entitled to terminate this Agreement by issuing a Termination Notice to the Acquirer bank; provided that before issuing the Termination Notice, the Authority shall by a notice inform the Acquirer bank of its intention to issue such Termination Notice and grant 15 (fifteen) days to the Bidder to make a representation, and may after the expiry of such 15 (fifteen) days, whether or not it is in receipt of such representation, issue the Termination Notice.
- (b) Notwithstanding the above, IHMCL at its sole discretion may terminate the Contract Agreement any time by giving 30 days prior notice without assigning any reason.
- (c) Nothing herein shall restrict the right of the IHMCL to invoke the Bank Guarantee and other Guarantees furnished hereunder and pursue such other rights and/or remedies that may be available to the IHMCL under this Agreement and/or the Applicable Law.

1.2.35. Consequence of Termination

1. Upon Termination on account of Clause 1.2.34 (a):
 - i. the Authority shall encash and appropriate the Performance Security, Additional Performance Security if any.
 - ii. the Authority may debar/blacklist the successful bidder from participating in any other project/assignment/work of IHMCL for a period as determined by IHMCL at its sole discretion.
2. Upon Termination on account of Clause 1.2.34 (b), the Authority shall make Termination Payment as under:
 - i. **During (02 Months Implementation period) + O&M Period (60 months) :**

Depreciated value of the installed equipment(s) and shall take into possession the installed equipment(s). In such a case the depreciating cost of the equipment shall be calculated as below:

 - a) The depreciation value of the indicated equipment in Form F-2 of the financial bid shall

be reduced by 20% every year to the rate mentioned for the respective items, subject to the provision of Note 2 of Form F-2.

Illustration If the unit cost of any equipment is Rs. 100/-, after 1 year, the depreciated cost of the equipment remains Rs. 80/-. Similarly, after the 2nd year, the cost of equipment remains Rs. 60/-, after the 3rd year, the cost of equipment remains Rs. 40/-, after the 4th year, the cost of equipment remains Rs. 20/-, and after the 5th year, the cost of equipment remains Rs. 0/-.

ii.Deleted

iii. The Bidder expressly agrees that Termination Payment shall constitute a full and final settlement of all claims of the Bidder on account of Termination of this Agreement and any other payment payable with respect to the Contract Agreement. The Bidder undertakes that it shall not have any further right or claim under any law, treaty, convention, contract, or otherwise, arising out of or in connection with the Contract Agreement.

3. Upon Termination, the Bidder shall handover all reports, all applicable photographs, videos and all other data generated in readable format as per the provision of entire Vehicle Monitoring, Enforcement and Collection System (VMECS) including all data, backup data and any other material / document set forth in this Agreement, to IHMCL or its representative in running condition

1.2.36. Handing over and taking over

- a) After the expiration of the Maintenance Period stipulated in the Contract Agreement and any extensions thereof, the Bidder shall hand over the gantries in a good, workable, and painted condition as per the conditions outlined in the RFP.
- b) After the expiry of the Maintenance Period set forth in the Contract Agreement and any extension thereof, the bank shall handover entire facility in good working condition, reports, all applicable photographs, videos and migration of all other data generated in readable format as per the provision of entire Vehicle Monitoring, Enforcement and Collection System(VMECS) data facility including all data, backup data and any other material / document set forth in this Agreement, to IHMCL or its representative in running condition.

1.2.37. Survival of rights

Notwithstanding anything to the contrary contained in this Contract Agreement, any Termination pursuant to the provisions of this Contract Agreement shall be without prejudice to the accrued rights of either Party including its right to claim and recover money damages, security deposits, and other rights and remedies which it may have in law or contract.

1.2.38. Indemnification

- (a) The Bidder shall indemnify, defend, save and hold harmless, IHMCL and NHAI and its Officers, Agents, Engineer, against any direct loss, damage, claims, cost and expense of whatever kind and nature (including without limitation, legal fees, claims and expenses incurred in connection with any suit, action or proceeding or any claim asserted, such as fees and expenses incurred), joint or several, that arise out of or are based upon any order passed by any statutory authority including courts, tribunals or

other judicial/ quasi – judicial authorities, on account of breach of the Bidder's obligations under this Contract Agreement or any other related agreement or otherwise, any fraud or negligence attributable to the Bidder or its Agents or Sub-Contractors (SI), under contract or tort or on any other ground whatsoever, all eventualities of theft, dacoity, robbery, etc., except to the extent that any such suits, proceedings, actions, demands and claims has arisen due to any breach or default of this Contract Agreement on the part of IHMCL.

- (b) The Bidder shall indemnify IHMCL and NHAI and MoRTH of all legal obligations of its professionals deployed. IHMCL and NHAI and MoRTH also stand absolved of any liability on account of death or injury sustained by the Bidder's staff during the performance of their work and for any damages or compensation due to any dispute between the Bidder and its staff.
- (c) The remedies provided under this Article are not exclusive and shall not limit any rights or remedies that may otherwise be available to IHMCL Indemnified Party at law or in equity.
- (d) The provisions of this Article shall survive Termination.

1.2.39. Compensation for default by the Bidder

- 1) In the event of the Bidder being in breach of this Contract Agreement, unless such default or delay is on account of Force Majeure or through no fault of the Bidder, the Bidder shall pay to IHMCL, all direct costs suffered or incurred by IHMCL because of such breach, within 30 days of receipt of the demand supported by necessary particulars thereof.
- 2) The Bidder shall pay to IHMCL all direct costs suffered or incurred by IHMCL incurred because of all losses, claims, damages and liabilities (including, without limitation, legal fees and other expenses incurred in connection with any suit, action or proceeding or any claim asserted, such as fees and expenses incurred), joint or several, that arise out of, or based upon:
 - (i) Any untrue statement or misrepresentation of a material fact provided by the Bidder or an omission to state a material fact required to be communicated.
 - (ii) Any non-performance or breach of the roles, responsibilities, representations, warranties, undertakings and declarations contained herein by the Bidders or its directors, employees, personnel or representatives.
 - (iii) Negligence, fraud or misconduct of the Bidder or any of its employees, agents, affiliates or advisors.

1.2.40. Cap on Liability of Parties

- a) Subject to Clause 1.2.40 (b), the aggregate liability of Bank (and its Affiliates) to the IHMCL for any Losses arising in connection with this Agreement, whether based upon an action or claim in contract, tort (including negligence), misrepresentation, equity or otherwise (including any action or claim arising from the acts or omissions

of the Bank (or, as the case may be, its Affiliate)) shall not exceed the Performance Security or an amount equal to the Charges for Services paid to the Bank under the Agreement till the date of such event, whichever is higher.

- b) The limitation described in Clause 1.2.40(a) above will not apply to (i) Bank's obligations under Clauses 1.2.25 [Confidentiality of the Assignment/Findings] or 6.8 [Indemnity].
- c) Bank has a duty to mitigate the damages and any amounts payable under an indemnity that would otherwise be recoverable from the IHMCL pursuant to signing of the resultant Agreement by taking appropriate and commercially reasonable actions to reduce or limit the amount of such damages or amounts.

1.2.41. Representation and Warranties of the Bidder

The Bidder declares, represents, and warrants as follows:

- 1) It is duly organized and validly existing under the laws of India and has full power and authority to execute and perform its obligations under this Contract Agreement and to carry out the works and provide services contemplated hereby.
- 2) It has taken all necessary corporate actions under Applicable Laws to authorize the execution and delivery of this Contract Agreement and to validly exercise its rights and perform its obligations under this Contract Agreement.
- 3) It has obtained all necessary internal/external approvals, registrations and certifications required from relevant authorities and other entities for fulfilling its obligations as set out in this Contract Agreement.
- 4) It has not violated any of the conditions subject to which such approvals, registrations and certifications have been granted or any other applicable regulations and / or guidelines or directives or statutes.
- 5) It shall ensure that such approvals, registrations and certifications will remain in force, including, by taking prompt steps for timely renewal of the same.
- 6) It undertakes to continue to comply with all Applicable Laws with respect to its roles / obligations under this Contract Agreement.
- 7) There are no actions, suits, proceedings, or investigations pending before any court or before any other judicial, quasi- judicial or other authority, the outcome of which may result in the breach of this Contract Agreement or which individually or in the aggregate may result in any material impairment of its ability to perform any of its obligations under this Contract Agreement.
- 8) Deleted**
- 9) No representation or warranty by the Bidder contained herein or in any other document furnished by it to IHMCL in relation to Applicable Laws contains or will contain any untrue or misleading statement of material fact or omits or will omit to state a material fact necessary to make such representation or warranty not misleading.

- 10) No sums, in cash or kind, have been paid or will be paid, by or on behalf of the Bidder, to any person by way of fees, commission or otherwise for securing the award of this Contract Agreement or for entering into this Contract Agreement or for influencing or attempting to influence any officer or employee of IHMCL in connection therewith.

1.2.42. Exit Management

1. The bidder shall submit a structured & detailed Transition and Exit Management plan to IHMCL along with the bid.
2. At the end of the contract period or during the contract period, if any other agency is identified or selected for providing services related to the scope of work, the bidder shall ensure that a proper and satisfactory handover is made to the other agency.
3. All risk during transition stage shall be properly documented by the bidder and mitigation measures shall be planned to ensure a smooth transition without any service disruption.
4. The bidder must ensure that no end of support products exist at time of transition.
5. The bidder must provide notice 06 (six) months in advance before starting the exit management activities.
6. The transition & exit management period will start 6 (six) months before the expiration of the contract. The bidder will provide shadow support for at least three months and secondary support for an additional three months before the end of the O&M period or termination of the contract or mutually exit, as applicable at no additional cost to IHMCL. In case of termination, the exit management period will start from effective date of termination, or such other date as may be decided by IHMCL but no later than 3 months from effective date of termination.
7. Closing off all critical open issues as on date of exit. All other open issues as on date of Exit shall be listed and provided to IHMCL.
8. The bidder shall provide all necessary knowledge transfer and transition support. The deliverables are indicated below:
 - a) Updated transition plan on periodic basis
 - b) Complete documentation for the entire system handed over to the IHMCL /identified agency.
 - c) Handover of all AMC support related documents, credentials etc. for all OEM products supplied/maintained in the system.
 - d) Handover of the list of complete inventories of all assets created for the project.
 - e) Assisting the new agency/ IHMCL with the complete audit of the system including
 - f) Detailed walk-throughs and demos for the solution.

- g) Handover of all data generated during the contract period, along with project documentation, including images, videos, and other applicable materials, shall be provided to IHMCL at no additional cost.
 - h) Knowledge transfer of the system to IHMCL to the satisfaction of the prescribed conditions per the specified timelines.
9. The bidder shall be released from the project once successful transition is completed by meeting the parameters defined for successful transition.
10. Any new gantry constructed by the bidder under this project shall be handed over to IHMCL along with all civil works, electrical fixtures in a good, workable, and painted condition as per the conditions outlined in the RFP.

Schedule-A: Site of the Project

1. The Site:

The Gantries shall be installed at the following locations along the merging of WPE and EPE with Roads/Highways towards Delhi-NCR Region as under:

Sr. No.	Project	Interchange	Intersection Road	Geo Codes	Location	Location Identified for Gantry construction	Nearest Power Source	Authority	Concessi onaire	No. of Lanes	Dir ecti on
1	WPE	KMP Cloverleaf Interchange (Kundli)	NH-44	28.911742, 77.106591	NH-44	550 mtr from WPE Under Bridge 70 mtr after Slip Road End	550 mtr to WPE Under Bridge	HSI IDC/ NHAI		4+2	To wards Delhi
2	EPE	Mavikalan Toll Plaza	NH-709B	28.875270, 77.250343	NH-709B	180 mtr from Mavikalan Toll Ramp Plaza 12 mtr after Slip Road End	180 mtr to Mavikalan Toll Ramp Plaza	NHAI	NCR EPE Private Limited (Maple Highways)	3+2	To wards Delhi
3	EPE	Badagao n Toll Plaza (Trilok Dham)	Badagao n Tyagi Road - State Road (SH/PWD /Village Road)	28.868921, 77.324205	Badagao n Tyagi Road - State Road (SH/PWD /Village Road)	100 mtr from Badagao n Ramp Toll Plaza 42 mtr from EPE Underpass (Bridge)	100 mtr to Badagao n Ramp Toll Plaza	NHAI/State	NCR EPE Private Limited (Maple Highways)	2	To wards Delhi
4	EPE	Duhai Toll Plaza	Old Delhi Meerut Road	28.732763, 77.476883	Old Delhi Meerut Road	105 mtr from Duhai Ramp Toll Plaza 50 mtr after Slip Road End	105 mtr to Duhai Ramp Toll Plaza	NHAI	NCR EPE Private Limited (Maple Highways)	3+1	To wards Delhi
5	EPE	Rasoolpu r Toll Plaza	NE-3	28.703116, 77.520624	NE-3	150 mtr from EPE-DME Bridge 370 mtr from Rasoolpu	370 mtr to Rasoolpu r Ramp Plaza	NHAI	Cube Highways/NCR EPE Private Limited (Maple	3+1	To wards Delhi

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Sr. No.	Project	Interchange	Intersection Road	Geo Codes	Location	Location Identified for Gantry construction	Nearest Power Source	Authority	Concessions	No. of Lanes	Direction
						r Ramp Plaza			Highways)		
6	EPE	Dasna Toll Plaza	NH-09	28.685314, 77.525326	NH-09	250 mtr from Dasna Ramp Plaza 65 mtr from Slip Road	250 mtr to Dasna Ramp Plaza	NHAI	Cube Highways/NCR EPE Private Limited (Maple Highways)	3+2	Towards Delhi
7	EPE	Dadri Toll Plaza	GT Road (NH-334C)	28.522259, 77.593533	GT Road (NH-334C)	375 mtr from Dadri Ramp Toll Plaza 32 mtr from Slip Road End	375 mtr to Dadri Ramp Toll Plaza	NHAI	Cube Highways/NCR EPE Private Limited (Maple Highways)	3+1	Towards Ghaziabad/Delhi
8	EPE	Fatehpur Rampur Toll Plaza	PWD/GN DA Road	28.439792, 77.584641	PWD/GN DA Road	350 mtr from Fatehpur Rampur Ramp Toll Plaza At the End of Slip Road	350 mtr to Fatehpur Rampur Ramp Toll Plaza	NHAI/G NDA	NCR EPE Private Limited (Maple Highways)	4+1	Towards Noida/Delhi
9	EPE	Fatehpur Rampur Toll Plaza	PWD/GN DA Road (Bulandshahr Road)	28.432183, 77.582141	PWD/GN DA Road (Bulandshahr Road)	35 mtr from EPE Underpass (Bridge) 750 mtr from Fatehpur Rampur Ramp Toll Plaza	750 mtr to Fatehpur Rampur Ramp Toll Plaza	NHAI/G NDA	NCR EPE Private Limited (Maple Highways)	2+1	Towards Noida/Delhi

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Sr. No.	Project	Interchange	Intersection Road	Geo Codes	Location	Location Identified for Gantry construction	Nearest Power Source	Authority	Concessor	No. of Lanes	Direction
10	EPE	Yamuna Expressway Interchange	Yamuna Expressway	28.37375052 77.5352476	Yamuna Expressway	Under Yamuna Expressway Underpass (Bridge) 290 mtr to Yamuna Expressway Interchange (Currently Under Construction)	290 mtr to Yamuna Expressway Interchange (Currently Under Construction)	NHAI/Y EIDA	Jaypee/Y eida/NCR EPE Private Limited	3+2	Towards Noida/Delhi
11	EPE	Yamuna Expressway Interchange	Yamuna Expressway (Service Road)	28.373429, 77.535025	Yamuna Expressway (Service Road)	Under Yamuna Expressway Underpass (Bridge) 325 mtr to Yamuna Expressway Interchange (Currently Under Construction)	325 mtr to Yamuna Expressway Interchange (Currently Under Construction)	NHAI/Y EIDA	Jaypee/Y eida/NCR EPE Private Limited	2+2	Towards Noida/Delhi
12	EPE	Chainsa (Mojpur) Toll Plaza	Atali Main Road	28.2812043, 77.4368613	Atali Main Road	330 mtr from Chainsa (Mojpur) Ramp Toll Plaza 60 mtr after Slip Road End	330 mtr to Chainsa (Mojpur) Ramp Toll Plaza	NHAI/State	NCR EPE Private Limited (Maple Highways)	3	Towards Atali/Faridabad/Delhi
13	EPE	Sihol/Peelak Toll Plaza	Aligarh Palwal Road (NH-334D)	28.128121, 77.405376	Aligarh Palwal Road (NH-334D)	390 mtr from Sihol/Peelak Ramp Toll Plaza 35 mtr	390 mtr to Sihol/Peelak Ramp Toll	NHAI	Cube Highways/NCR EPE Private Limited	3	Towards Palwal/Delhi

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Sr. No.	Project	Interchange	Intersection Road	Geo Codes	Location	Location Identified for Gantry construction	Nearest Power Source	Authority	Concessor	No. of Lanes	Direction
						after Slip Road	Plaza		(Maple Highways)		Ihi
14	EPE	EPE Cloverleaf Interchange (Palwal)	Delhi Agra National Highway (Old NH-2)	28.103132, 77.333620	Delhi Agra National Highway (Old NH-2)	405 mtr from Ramp Plaza (Currently Non-Operational) 117 mtr after Slip Road End	405 mtr to Ramp Plaza (Currently Non-Operational)	NHAI	Cube Highways/NCR EPE Private Limited (Maple Highways)	3+2	Towards Palwal/Delhi
15	WPE	-	Hathin Palwal Road	28.113868, 77.283821	Hathin Palwal Road	Underpass of WPE	Need to Arrange	State/PWD/Village	HSIIDC/State	2	Towards Palwal/Delhi
16	WPE	-	Nuh Road (SH-134)	28.135630, 77.257328	Nuh Road (SH-134)	Underpass of WPE	Need to Arrange	State/PWD/Village	HSIIDC/State	2	Towards Palwal/Delhi
17	DND-KMP Expressway	Kiranj Toll Plaza	DND-KMP Expressway	28.192292, 77.173560	DND-KMP Expressway	450 mtr from Kiranj Toll Plaza	450 mtr to Kiranj Toll Plaza	NHAI	NHAI	3	Towards Palwal/Delhi
18	DVE (NE-4)	Khalilpur Toll Plaza	DVE (NE-4)	28.167859, 77.149262	DVE (NE-4)	1050 mtr from DVE-KMP Underpass (Bridge)	Need to Arrange	NHAI	NHAI	4+2	Towards Sohna/Delhi

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Sr. No.	Project	Interchange	Intersection Road	Geo Codes	Location	Location Identified for Gantry construction	Nearest Power Source	Authority	Concessioneer	No. of Lanes	Direction
19	WPE	Nuh Toll Plaza	NH-248A (Nuh-Sohna Road)	28.180729, 77.071828	NH-248A (Nuh-Sohna)	395 mtr from Nuh Toll Plaza 37 mtr after Slip Road Start	395 mtr to Nuh Toll Plaza	NHAI/H SIIDC	NHAI/HSI IDC	2+1	Towards Sohna/Delhi
20	WPE	Tawdu Toll Plaza	NH-919 (Tawdu-Sohna Road)	28.221257, 76.994707	NH-919 (Tawdu-Sohna Road)	400 mtr from Tawadu Toll Plaza 35 mtr after Slip Road Start	400 mtr to Tawadu Toll Plaza	NHAI/H SIIDC	NHAI/HSI IDC	2+1	Towards Sohna/Delhi
21	WPE	-	Naurangpur - Tawadu Road	28.248022, 76.959909	Naurangpur - Tawadu Road	Underpasses of WPE	Need to Arrange	State/PWD/Village/HSI IDC	HSI IDC/State	2	Towards Gurgaon/Delhi
22	WPE	Manesar Toll Plaza	NH-48 (Delhi Jaipur Highway)	28.321963, 76.898236	NH-48 (Delhi Jaipur Highway)	1.14 Km from Manesar Toll Plaza 250 mtr after Slip Road End	1.14 Km from Manesar Toll Plaza	NHAI/H SIIDC	NHAI/HSI IDC	3+2	Towards Gurgaon/Delhi
23	WPE	Patudi (Gurgaon) Toll Plaza	Pataudi Road (NH-352W)	28.395858, 76.868614	Pataudi Road (NH-352W) - Under Construction	520 mtr from Patudi (Gurgaon) Toll Plaza 37 mtr after Slip Road	520 mtr to Patudi (Gurgaon) Toll Plaza	NHAI/H SIIDC	NHAI/HSI IDC	3	Towards Gurgaon/Delhi
24	WPE	-	Farukhnagar Wazipur Road	28.437395, 76.861863	Farukhnagar Wazipur Road	Underpasses of WPE	Need to Arrange	HSI IDC/ NHAI	HSI IDC/State	3	Towards Gurgaon/Delhi

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Sr. No.	Project	Interchange	Intersection Road	Geo Codes	Location	Location Identified for Gantry construction	Nearest Power Source	Authority	Concessioneer	No. of Lanes	Direction
25	WPE	Farruknagar Toll Plaza	Farukhnagar Gurgaon Road	28.459381, 76.856965	Farukhnagar Gurgaon Road	Underpasses of WPE 450 mtr from Farukhnagar Toll Plaza	450 mtr to Farukhnagar Toll Plaza	HSI IDC	HSI IDC	3	Towards Gurgaon/Delhi
26	WPE	-	Basai Road (Badali) SH-136	28.561110, 76.822626	Basai Road (Badali) SH-136	Underpasses of WPE	Need to Arrange	HSI IDC/ State	HSI IDC/ State	3	Towards Gurgaon/Delhi
27	WPE	Badali Toll Plaza	Najafgarh Dhansa Road (SH-123)	28.568294, 76.825090	Najafgarh Dhansa Road (SH-123)	130 mtr after Slip Road End 520 mtr from Badali Toll Plaza	520 mtr to Badali Toll Plaza	HSI IDC/ State	HSI IDC/ State	3	Towards Najafgarh/Delhi
28	WPE	-	Badali Road (SH-136)	28.581421, 76.819410	Badali Road (SH-136)	Underpasses of WPE	Need to Arrange	HSI IDC/ State	HSI IDC/ State	2	Towards Najafgarh/Delhi
29	WPE	-	Jhajjar Bahadurgarh Road	28.658928, 76.816076	Jhajjar Bahadurgarh Road	Underpasses of WPE	Need to Arrange	HSI IDC/ State	HSI IDC/ State	3	Towards Bahadurgarh/Delhi
30	WPE	-	Bahadurgarh Mattan Beri Road	28.698098, 76.830239	Bahadurgarh Mattan Beri Road	Underpasses of WPE	Need to Arrange	HSI IDC/ State	HSI IDC/ State	2	Towards Bahadurgarh/Delhi

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Sr. No.	Project	Interchange	Intersection Road	Geo Codes	Location	Location Identified for Gantry construction	Nearest Power Source	Authority	Concessioneer	No. of Lanes	Direction
31	WPE	Asoda Toll Plaza	Delhi Rohtak Road	28.729413, 76.850987	Delhi Rohtak Road	800 mtr from Asoda Toll Plaza 78 mtr after Slip Road End	800 mtr from Asoda Toll Plaza	NHAI/HSI IDC	NHAI/HSI IDC	3+2	Towards Delhi
32	WPE	Kharkhoda Toll Plaza	Banda Singh Bahadur Marg	28.855326, 76.944579	Banda Singh Bahadur Marg	Underpass of WPE 470 mtr from Kharkhoda Toll Plaza 60 mtr after Slip Road	470 mtr to Kharkhoda Toll Plaza	HSI IDC/State	HSI IDC/State	2	Towards Delhi
33	WPE	-	Bhainswal Distributory Road	28.903854, 77.009460	Bhainswal Distributory Road	Underpass of WPE		HSI IDC/State	HSI IDC/State	3	Towards Nahara/Delhi
34	WPE	-	Garhi Bindroli Road to Majra Road Connector	28.914260, 77.043919	Garhi Bindroli Road to Majra Road Connector	Underpass of WPE		HSI IDC/State	HSI IDC/State	2	Towards Majra/Delhi
35	WPE	-	Sonipat Narela Road	28.917628, 77.063908	Sonipat Narela Road	Underpass of WPE		HSI IDC/State	HSI IDC/State	2	Towards Narela/Delhi

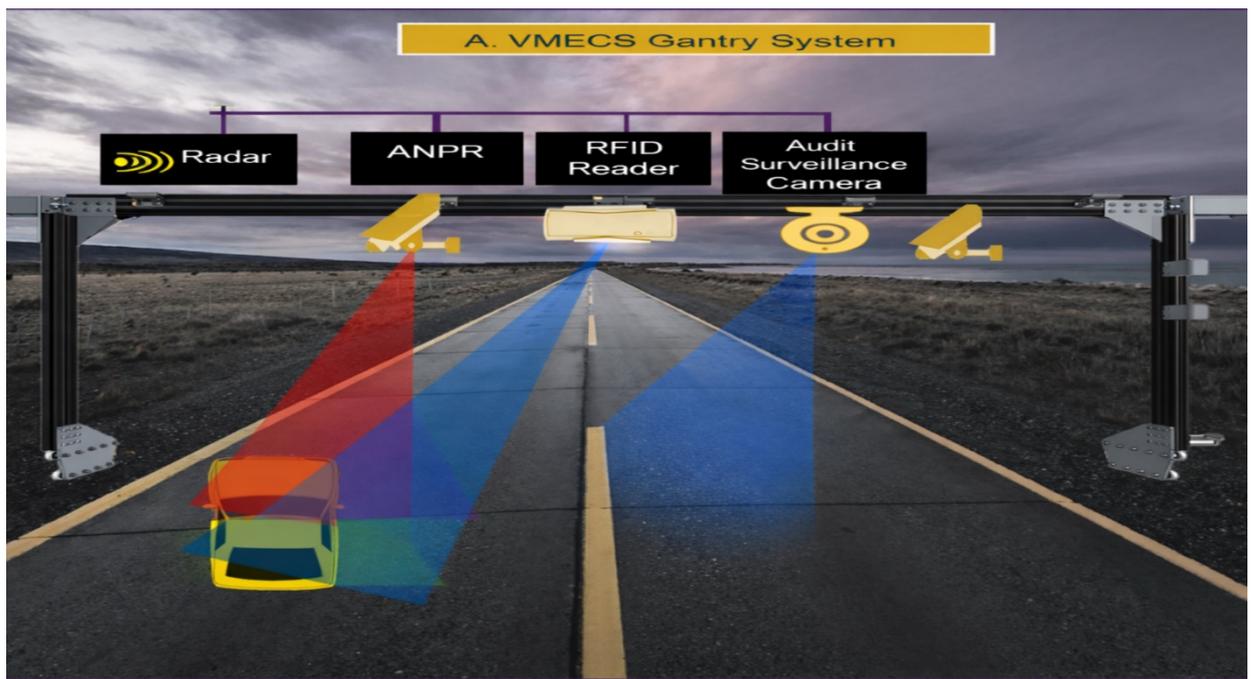
1.1. Annex – I (Schedule-A)

1.1.1. VMECS Gantry and Control Centre Location

The Site of the projects comprises the proposed Gantries and control centre locations described in Table A-1.

Location of Gantries	Location of Site Control Centre (Porta Cabin)	Location of Central Command & Control Centre
As per Schedule A (Clause-01)	At nearby suitable locations of Gantries of Schedule A (Clause-01)	At any location in Delhi National Capital Region as provided by IHMCL

1.1.2. **Appendix A-1**



Index map of project

(i) Identified 35 Gantries Locations



Schedule – B

1. Development of the VMECS

a) About the Vehicle Monitoring, Enforcement and Collection System

- i. The Authority has envisaged the implementation of a Vehicle Monitoring, Enforcement and Collection System (VMECS) for the Project to enable accurate monitoring of vehicles passing through the gantries, enforcement of speed and other regulatory provisions, and collection of applicable charges as notified by the Government from time to time through FASTag. The system aims to improve operational efficiency and ensure effective monitoring, enforcement, and seamless collection through an automated, barrier-free electronic framework. .
- ii. The Vehicle Monitoring, Enforcement and Collection System (VMECS) system will consist of field equipment and sensors mounted on gantries, which will capture the necessary information from passing vehicles. The captured data will be transmitted to NIC VAHAN Registry for validation as per Schedule-B, Clause (1)(d) and NETC payment ecosystem for the deduction of the applicable charges as notified by the Government from time to time through FASTag.
- iii. The Successful Bidder/Bank shall be responsible for the design, development, testing, commissioning, operation, and maintenance of the Vehicle Monitoring, Enforcement and Collection System (VMECS) at the locations specified in *Schedule A*, including computation & collection of applicable charges and seamless integration with the Bank's acquiring platform, as part of the Project, to deliver all services as prescribed by IHMCL and NPCI for the Acquirer Bank. The proposed VMECS shall be developed in accordance with the Technical Specification Documents issued by IHMCL and NPCI, and shall support real-time processing of all vehicle transactions at the VMECS gantries. The system shall interface with NPCI systems, including the NETC Switch and NETC Mapper, and shall also integrate with the systems of National Informatics Centre (NIC), to enable accurate identification of vehicles, determination of applicable charges as notified by the Government from time to time, and efficient processing payments from eligible vehicles. The VMECS shall further be capable of detecting instances of non-payment or violations by eligible vehicle users in respect of applicable charges through FASTag, and shall seamlessly integrate with NPCI and other external systems for generation, processing, and management of e-Notices in accordance with the process flow defined in this RFP.
- iv. The system should comply with all applicable NETC Procedural Guidelines (PG document) as well as Interface Control Document (ICD) rules of NPCI & IHMCL as updated from time to time.
- v. The Vehicle Monitoring, Enforcement and Collection System (VMECS) shall be provided with functional and technical specifications specified in the Schedule-C and shall be operated and maintained throughout the contract period.

b) Development of the Vehicle Monitoring, Enforcement and Collection System (VMECS)

- i. Through this RFP, IHMCL seeks to select a certified Acquirer Bank to acquire and process transactions generated under the Vehicle Monitoring, Enforcement and Collection System (VMECS), including the collection of charges as notified by the

Government from time to time from eligible vehicles and enforcement of speed regulations for vehicles passing through the gantries. The Successful Bidder/Bank shall perform all roles and responsibilities as defined in the *Procedural Guidelines – National Electronic Toll Collection Network* (latest version) issued by NPCI, and any subsequent guidelines, circulars, or directions issued by NHAI / IHMCL / NPCI / MoRTH from time to time.

- ii. The scope of the Project shall include the design, supply, installation, testing, commissioning, and operation & maintenance of the integrated Vehicle Monitoring, Enforcement and Collection System (VMECS) at the project locations, including vehicle detection, speed monitoring and enforcement, identification of eligible vehicles, and seamless collection of applicable charges, as detailed in *Schedule-B* and *Schedule-C* of this RFP.

- c) The Bidder shall develop following at each Gantry Location:

VMECS facility by installing new Gantries on provided locations in Schedule-A.

The Bidder/Bank shall be fully responsible for ensuring the continuous safety, security, and illumination of the installed gantries, covering all necessary measures to protect the infrastructure and provide clear visibility under all weather and lighting conditions.

Note:

- i. The bidder shall be required to submit detailed design drawings including design calculations of gantries which should be approved from any of the Indian Institute of Technology (IIT)/ National Institute of Technology (NIT).
- d) The Bidder shall ensure detection of every M and N category vehicle as defined under the Central Motor Vehicles Rules, 1989, passing through each gantry using the Vehicle Monitoring and Enforcement Camera System (VMECS). The captured vehicle data shall be securely transmitted to National Informatics Centre through API-based integration with VAHAN and SARATHI platforms for **vehicle validation, verification, and retrieval** of vehicle-related information, including but not limited to the following minimum details:
 - i. Vehicle Registration Number
 - ii. Vehicle Class / Category
 - iii. Commercial / Non-Commercial
 - iv. Fuel Type
 - v. Number of Axle
 - vi. Gross Vehicle Weight
 - vii. Bharat Stage (BS) Emission Standard
 - viii. Vehicle Make, Model and Color
 - ix. Fitness Validity
 - x. Insurance Validity
 - xi. Pollution Validity
 - xii. Registration Validity

e) Local Control Center

- i. The Bidder shall establish a Local Control Centre at each gantry location, preferably in a porta cabin, for installation of equipment such as the local server with rack, workstation, and other associated systems. The Local Control Centre shall be equipped with an air conditioner to maintain the required operating temperature for the installed systems.
- ii. The Vehicle Monitoring, Enforcement and Collection System (VMECS) installed at the gantry shall be integrated with the systems at the Local Control Centre for local data storage and onward transmission to the Central Command and Control Centre.
- iii. The Bidder shall ensure the following arrangements at each gantry location:
 - a) Proper Earthing
 - b) Lightning Arrestor
 - c) Surge Protection
- iv. A diesel generator shall be provided at each gantry location based on the defined load requirements. The total DG capacity shall be at least twice the total load of the VMECS system at the gantry location, including the porta cabin systems. The same DG power shall also be used to provide lighting near the gantry area.
- v. In case, after implementation of the VMECS at a gantry location, any relocation is carried out for the gantry system, the Bidder shall make necessary arrangements to ensure seamless data connectivity between the gantry system and the porta cabin through OFC or MPLS connectivity or any proven technology.
- vi. In the event of any disconnection between the Local Server and the Central Server, the Local Server shall continue to operate in standalone mode to ensure uninterrupted transaction processing to NIC and NPCI for the collection of applicable charges as notified by the Government from eligible vehicles. However, data related to speed enforcement shall be transmitted only through the Central Control Centre and shall be forwarded once connectivity is restored.
- vii. The Bidder shall provide an online UPS system of adequate capacity at each Local Control Centre to ensure uninterrupted operation of all VMECS, with a minimum backup autonomy of 8 hours or as specified by the Authority. The UPS shall provide clean and isolated power supply with surge protection and automatic changeover to DG power.
- viii. The Local Control Centre shall be secured with lockable access, proper equipment racks, and restricted entry provisions. The Bidder shall install a fire extinguisher inside the porta cabin and ensure that the gantry and cabin area are covered through surveillance for safety and asset protection. All installations shall comply with applicable electrical and safety standards.
- ix. The porta cabin and equipment enclosures shall be weather-proof, dust-resistant, and suitably insulated to withstand outdoor environmental conditions. Proper ventilation, thermal protection, and rodent-proof cable routing shall be ensured for reliable long-term operation of the system.

x. MPLS Network

- a) The Bidder shall provide at each gantry location at least one Primary and one Secondary Internet connectivity from two different service providers to ensure high system availability. Each link shall be a minimum 100 Mbps MPLS or dedicated leased line connection. Automatic failover between the links shall be configured so that transaction processing and data transmission continue without interruption in the event of failure of any one link.
- b) The connectivity shall be provided only by telecom operators holding a valid Unified License (UL) or Internet Service Provider license issued by the Department of Telecommunications, Government of India, and the Bidder shall ensure that connectivity is provisioned directly through the licensed operator's backbone infrastructure.
- xi. All gantry equipment, local servers, and associated systems shall be synchronized through GPS/NTP-based time synchronization to maintain uniform timestamping of transactions and enforcement records. The Bidder shall also ensure secure logging, encryption of transmitted data, and storage of transaction logs locally for a minimum retention period as specified by the Authority.
- xii. All data stored at the Local Server shall be replicated to the Central Control Centre in real time. Any data accessible at the Local Server shall be simultaneously accessible at the Central Server, and the Bidder shall ensure that there is no data loss, delay, or synchronization gap between the two systems.
- xiii. The Bidder shall provide adequate road safety and visibility measures at each gantry location to safeguard the gantry structure and porta cabin from accidental vehicle impact. This shall include installation of high-intensity reflective tapes, hazard markers, warning signages, bollards/crash barriers, and any other approved safety devices as per relevant IRC/road safety standards. The Bidder shall ensure that these measures remain visible during night and adverse weather conditions and are properly maintained throughout the contract period.
- xiv. The Bidder shall implement appropriate redundancy at the Local Control Centre for servers, storage, and network components to ensure uninterrupted operation of the VMECS system. Automated local backups shall be taken periodically and securely synchronized with the Central System. The Bidder shall ensure that no transaction data is lost due to hardware, power, or connectivity failures at the Local Control Centre.
- xv. The Bidder shall deploy suitable cybersecurity measures at each Local Control Centre including secure firewalls, endpoint protection, controlled access to systems, encrypted communication with the Central Server, and secure user authentication. Access to Local Control Centre systems shall be restricted to authorized personnel only and all user activities shall be logged for audit and traceability.
- xvi. The Bidder shall be responsible for the day-to-day operation, cleaning, housekeeping, and preventive maintenance of the porta cabin, IT equipment, power systems, network devices, and associated infrastructure at each Local Control Centre throughout the contract period. The Bidder shall ensure that the Local Control Centre remains secure, functional, and maintained in proper operating condition at all times.
- xvii. As VMECS at Gantry level is man less operation. Thus, the team should keep all

equipment monitored by 24*7 Online through local Control Center. When the alerts will come out, the issues will be handled by deployed System Maintenance Engineer.

xviii. The Bidder shall deploy adequate manpower at each Local Control Centre to ensure continuous and secure operation of the VMECS infrastructure. The minimum manpower requirement at each site shall include:

- a) System Maintenance Engineer (Site): 3 in each shift + 1 reliever
- b) Security Guards: 3 in each shift + 1 reliever

f) Central Command and Control Centre

- i. The Common Control Centre (CCC) shall be established within Delhi NCR as provided by Authority and shall function as the central hub for monitoring, validation, enforcement processing, and charges as notified by Government computation and collection from eligible vehicles under the Vehicle Monitoring, Enforcement and Collection System (VMECS). All gantry-based detections shall be received, processed, and verified at the CCC prior to enforcement action or financial processing.
- ii. The Bidder shall provision the Central Server either on a secure Government-compliant cloud platform(MeitY empanelled cloud-based infrastructure) or through a physical data centre setup. The infrastructure shall ensure high availability, redundancy, scalability, and compliance with applicable Government security standards.
- iii. The Bidder shall supply, install, configure, and maintain all necessary equipment at the CCC including but not limited to: Central servers/cloud environment, 42U server rack, operator workstations with minimum 27" display, video wall for monitoring camera feeds, network colour printer, storage systems with RAID/NAS backup, camera servers/NVRs, and all associated peripherals. The system shall be deployed in accordance with the applicable Standards and Technical Specifications defined in the RFP.
- iv. The Central Server shall aggregate data from all gantry locations in real time for processing, monitoring, reporting, enforcement validation, and archival. The system shall support centralized dashboards, audit logs, alert generation, and role-based access control for authorized personnel.
- v. The Bidder shall ensure seamless integration of the Central System with National Informatics Centre for secure fetching and validation of vehicle-related data fields as defined in the RFP. All integrations shall follow prescribed API security protocols, authentication mechanisms, and data protection guidelines issued by Government authorities.
- vi. The Central System shall be integrated at the central level with NPCI for sharing of transaction data, computation of applicable charges, and facilitation of charge collection from respective issuer banks for eligible vehicles. The Bidder shall ensure secure financial messaging, reconciliation mechanisms, and audit trails for all such transactions.
- vii. The Bidder shall implement redundancy at server, storage, and network levels. Automated backups shall be taken periodically and stored in a secure off-site or cloud

location. A disaster recovery mechanism shall be maintained to ensure restoration of services within the time limits specified in the SLA.

- viii. The Bidder shall implement appropriate cybersecurity measures including firewalls, intrusion detection/prevention systems, encrypted communication channels, endpoint protection, and multi-factor authentication. Access to CCC systems shall be role-based and fully logged for audit purposes.
- ix. The Bidder shall be responsible for the operation, cleaning, housekeeping, and preventive maintenance of all CCC infrastructure, equipment, and installations throughout the contract period. The Bidder shall ensure that the CCC remains operational, secure, and maintained in a professional condition at all times.
- x. The Bidder shall provide automated reporting tools, analytics dashboards, and audit logs accessible to the Authority for monitoring system performance, transaction volumes, enforcement actions, and financial reconciliation.
- xi. All transaction data, images, and video evidence generated under the Vehicle Monitoring, Enforcement and Collection System (VMECS) shall be securely stored, protected, and preserved in accordance with the data retention timelines specified in the RFP. The Bidder shall ensure integrity, availability, and retrievability of such data for audit, enforcement, and legal purposes throughout the prescribed retention period.
- xii. The Bidder shall provision at the Central Command and Control Centre at least one Primary and one Secondary Internet connectivity from two different service providers to ensure uninterrupted operation of the VMECS platform. Each link shall be of adequate bandwidth (minimum 1 Gbps) through MPLS or dedicated leased line connectivity with automatic failover configuration. The connectivity shall be sourced only from telecom operators holding a valid Unified License issued by the Department of Telecommunications, Government of India, and shall be provisioned directly through the licensed operator's backbone network. The Bidder shall ensure high availability, low latency, and compliance with Government security and data protection requirements.
- xiii. All speed violation data detected at gantries shall be transmitted to the CCC for centralized validation, evidence verification, and enforcement approval prior to issuance of notices. No speed enforcement record shall be finalized or transmitted externally without processing through the CCC.
- xiv. The Bidder shall ensure that the Central System operates on a 24x7 basis to support uninterrupted transaction processing, charge computation, and enforcement actions across all gantry locations. Redundancy, failover mechanisms, and secure backups shall be implemented to prevent any disruption in enforcement or revenue collection.
- xv. The minimum manpower requirement at the CCC shall include:
 - a) Project Manager (CCC) : 3 in each shift + 1 reliever
 - b) Senior System Maintenance Engineers (CCC): 3 in each shift + 1 reliever
 - c) Auditors / Transaction Validators (CCC): 7 in each shift + 1 reliever
 - d) Housekeeping Staff: 3 in each shift + 1 reliever

2. Operations & Maintenance of the VMECS (Refer detailed roles and responsibilities in Section 8 below)

a) Operations Activities:

1. Data Management:

- i. Transaction Records: Maintain detailed records of all transactions for auditing and reporting purposes.
- ii. Compliance Reporting: Generate reports to comply with regulatory requirements and provide insights for traffic management.

2. Customer Support:

- i. Assistance in payment of e-Notice payments

b) Maintenance Activities:

1. System Infrastructure:

- i. Equipment Upkeep: Regular maintenance of RFID readers, cameras, and other VMECS to ensure optimal performance.
- ii. Software Updates: Implement updates and patches to the VMECS software to enhance functionality and security.

2. Network Management:

- i. Connectivity Monitoring: Ensure continuous and reliable network connectivity for real-time data transmission.
- ii. Troubleshooting: Address and resolve any technical issues promptly to minimize system downtime.

3. Security Measures:

- i. Data Protection: Implement robust security protocols to protect financial and personal data from cyber threats.
- ii. Fraud Prevention: Monitor transactions for any fraudulent activities and take necessary actions to prevent them.

4. Performance Monitoring:

- i. System Audits: Conduct regular audits to assess the performance and reliability of the VMECS.
- ii. Feedback Mechanism: Collect and analyze feedback from users to identify areas for improvement and implement necessary changes.

c. By efficiently managing these operations and maintenance activities, the acquirer bank ensures the VMECS operates smoothly, providing a seamless experience for vehicle owners and contributing to better traffic management.

d. **STQC and CERT-In Certification:** The Bidder shall be required to carry out STQC certification of its VMECS software within 6 months from the date of completion of SAT. Further the Bidder shall be required to conduct CERT-In certification of its

VMECS software every year post Go-Live of the VMECS.

3. Charges Collection from the VMECS

a. Transaction Processing for settled and non-settled transactions:

1. All transactions shall be sent to local and central server in line with the Procedural Guidelines of the NETC programme, Interface Control Document (ICD) and Other Technical Specification Document as issued by IHMCL / NPCI from FASTag programme and amended from time to time.

2. **Violation Management:** As per e-Notice module as detailed at Schedule B.

b. Charges as Notified by Govt. Collection:

The Charges collection from eligible vehicles shall be done through high performance ANPR – FASTag VMECS as mentioned in Schedule B & C.

c. Rate of applicable Charges to be collected from eligible vehicles:

1. As notified by Government from time to time. .

d. Penalty for Failure to Pay Collected charges from eligible vehicles:

1. In case of delay in remittance of the collected charges from eligible vehicles by the bidder, the Authority shall levy penalty @ 0.2% per day for delay in remittance of payment. The bidder/bank will be required to pay the dues along with penalty within 3 working days of the specified day failing which the same will be adjusted from the Cash Performance Security. Cash Performance security shall be replenished by the bidder/bank within 3 working days from the date of such recovery. If the agency fails to replenish the performance security and clear the dues in the next 3 working days, the contract is liable to be terminated. Immediate/real time credit in the prescribed account after the completion of week,

2. For avoidance of doubt, if more than one remittance is delayed and the bidder deposits a lumpsum amount, this will be adjusted following First-in-First-out (FIFO) approach, i.e., the earliest instalment due shall be first adjusted along-with the applicable penal interest on the earliest remittance on that date and in similar manner the other remittances shall be adjusted. No further interest shall be applicable on the penal interest component. The penal interest shall be simple, i.e., it shall not be compounded.

(a) If the remittances outstanding including penal interest, if any, on ending of the contract is less than the cash performance security, then such amount shall be recovered from cash performance security, accounts will be settled, and balance securities will be released, and penal interest shall be levied only upto end date of contract. In case the contractor has not deposited the remittance of last week on ending of the contract period which is also to be adjusted from the cash performance security, then an additional penal interest @ 0.2% per day for 3 working days on the last week remittance shall also be levied.

(b) If the remittances outstanding including penal interest, if any, on ending of the contract are more than the cash performance security, then the dues to the extent of cash performance security will be adjusted as provided Para 2 above,

following FIFO approach and the balance including penal interest shall be deposited by the bidder/bank.

- (c) For avoidance of doubt, it is clarified that the end of contract period, the penal interest @ 12% p.a compounded annually only will be applicable on the balance remittances and the penal interest due as on end date of contract period, till payment of dues by the bidder/bank.

e. Operational Transparency

The bidder/bank shall be solely responsible for efficient and transparent working and management of Charges collection at all times. The bidder/bank shall ensure the following:

- (i) No fraudulent/parallel system in lanes to process cash/exempt transaction.
- (ii) Video recording system of each gantry location VMECS will be provided to Command Centre on 24*7 basis and is not mishandled.

4. Obligations of the Bidder/Bank

- a) To Design, Develop, Test, Commission, Operate and Maintain the Vehicle Monitoring, Enforcement and Collection System as per the Contract Agreement
- b) To adhere to the SLA parameters given under the Contract Agreement
- c) Integration with NPCI and NIC system as per e-Notice Module
- d) Ensuring all equipment functioning 24x7x 365 and redundancy of all equipment to achieve uninterrupted operations.
- e) Maintaining high availability (HA) of servers, network, and bandwidth.
- f) The Acquirer Bank shall assess the quantity of spares/ consumables to meet the SLA clauses mentioned in the bidding documents and factor that as part of his Bid. It is the bidder/bank responsibility to maintain the minimum required spares at any given time to meet the SLA requirement at no additional cost to the Client. bidder/bank should keep minimum 10% spare parts of critical equipment at any given point of project execution.
- g) The bidder/bank shall ensure that the gantry locations, including its equipment, is powered primarily by the (raw power) grid and secondarily by UPS, DG sets, and other renewable sources. The secondary power sources must ensure seamless connectivity in case of grid power cuts. All electricity charges for both grid and secondary power sources shall be borne by the bidder/bank.
- h) Procurement of any software licenses and hardware required for implementation of the solution is the sole responsibility of the bidder/bank. IHMCL bears no responsibility towards the same or towards any consequence resulting from non-conformance or non-compliance. All software utilized must be duly licensed, legally procured, and compliant with applicable licensing agreements; the deployment or use of unlicensed, pirated, or unauthorized software is strictly prohibited and shall constitute a violation of contractual and legal obligations.
- i) The bidder/bank specifically undertakes to abide by all the instructions issued by the

Authority from time to time on operational matters and further agrees not to raise any dispute against the same including any additional cost that the Contractor may be required to bear to comply with such instructions.

- j) During the Contract Period, the contractor shall furnish to the Authority, within 7 (seven) days of completion of each month, a statement of total detected vehicles and collected charges from eligible vehicles. Proper record is to be maintained at the local control room and CCC for the purpose of providing such information. The bidder/bank shall also submit such information sought by the Authority in such a format, as may be prescribed by the Authority from time to time.
- k) The bidder/bank undertakes the responsibility of the complete job of charges collected, upkeep/maintenance of adjacent Toilet blocks including recouping the consumable items maintenance of all records, maintenance of Charges collection account, maintenance of vehicle type wise Traffic Data on shift to shift basis, maintaining the cleanliness of Gantry location systems/Central Control Centre and surrounding area etc. and any other duty as may be assigned by the Authority from time to time.
- l) **Non-Disclosure Agreement (NDA):** The bidder shall be required to sign a Non-Disclosure Agreement (NDA) with IHMCL on a non-judicial stamp paper of appropriate value, as prescribed under the applicable laws of the jurisdiction. The NDA must be executed immediately after the award of work by IHMCL. It shall include provisions to ensure the confidentiality, integrity, and security of all data, information, and materials shared during the execution of the contract.
- m) The Bidder shall provide dedicated internet leased line connections with a redundant setup (Primary and Secondary) as per details provided in the RFP at the Gantry locations and Central Control Centre, sourced from different Internet Service Providers, to ensure uninterrupted processing of transactions and video streaming at remote locations.
- n) To maintain operational transparency throughout the Contract Duration.

5. Right of Inspection:

- a) The Authority reserves the right to conduct checks including surprise checks at any time, to check/observe/witness the activities of the bidder/bank including the gantry and control center and to monitor or to ensure that any or all the activities are being carried out properly by the personnel deployed by the bidder/bank.
- b) The Authority may exercise any check/control to ensure discharge of various obligations by the bidder/bank under the Contract including but not limited to following:
 - i. Correctness of the collected charges from users.
 - ii. Maintenance of proper registers including those relating to collection of charges from eligible vehicles.
 - iii. Weekly remittance of amount due from the bidder/bank by the prescribed day.
 - iv. Checking data in electronic/soft form.

- v. Maintain the gantry and control center and its appurtenances by the bidder/bank at its cost and ensure that they are in good running condition.
- vi. Arrangements for lighting and water at Gantry locations are in order.
- vii. There is no delay to the traffic due to procedure of collection of charges from eligible vehicles any blockage/hinderance to the passing vehicles, lane closure; and
- viii. Any other check or control as considered appropriate by the Authority including through its authorized representative.
- ix. Checking spare quantity at the plaza to maintain the SLA as mentioned in the Contract Agreement.

The above rights of inspection by the Authority also extends to the Toilet blocks handed over to the bidder/bank.

6. Cleanliness & Maintenance of Toilets, Control Center & Surrounding Areas

Bidder/bank shall be solely responsible for the Operation and Maintenance of the toilets surrounding areas as per requirements of IHMCL, without requiring any supervision and interference of IHMCL whatsoever.

It is the responsibility of the Bidder/Bank to ensure Facility Management, safety and security of the command control center and associated premise / infrastructure / space allocated for the purpose of the project. Bidder/Bank should ensure appropriate deployment of manpower and resources to ensure the same throughout the contract period.

The timings of the said 'Toilets' to be operated, maintained and remain available for Highway Users 24x7x365.

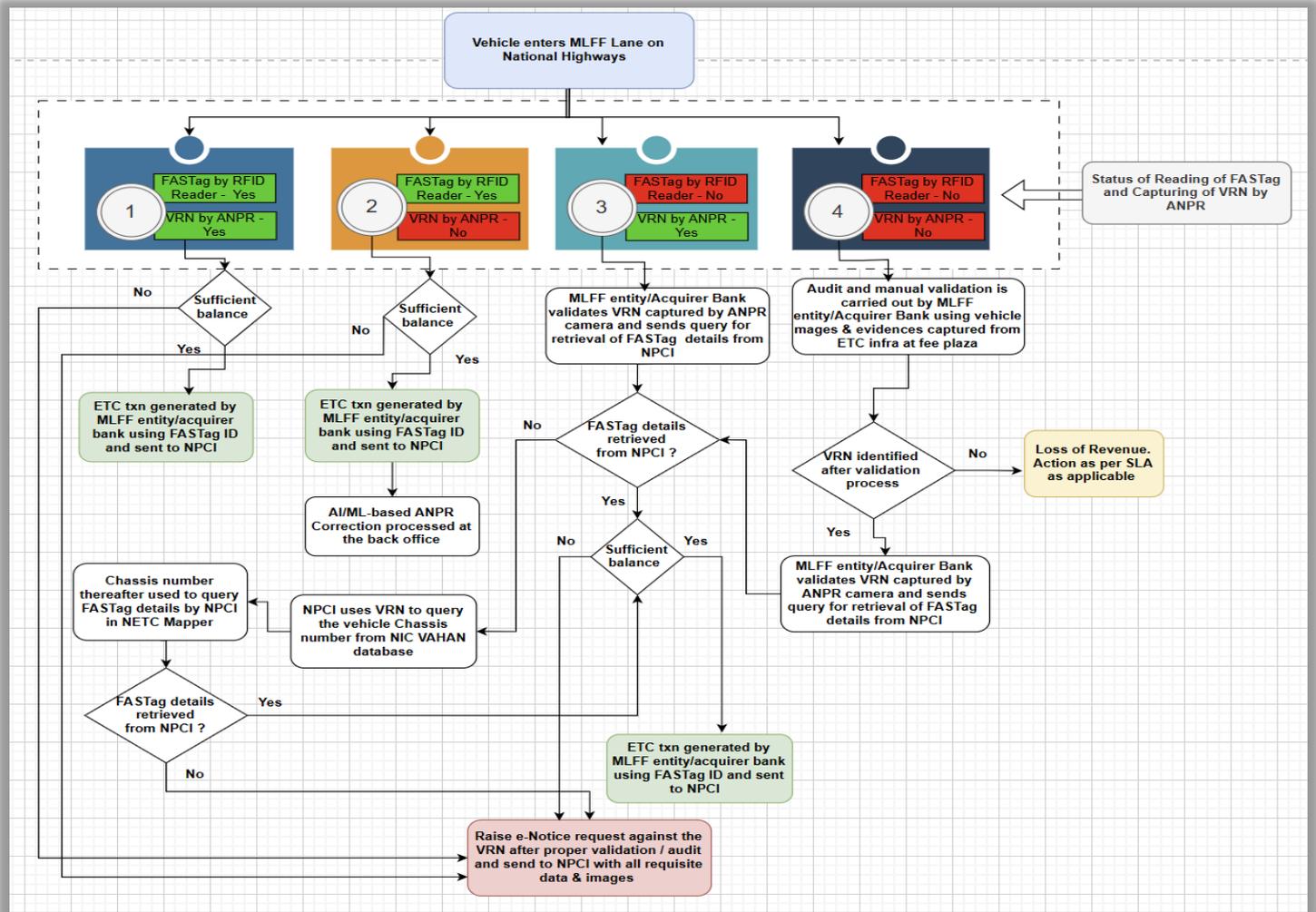
- i. The bidder/bank shall make necessary arrangements for supply chain management, store management and category management, solely at his own cost and risk.
- ii. The bidder/bank or its representatives shall not involve in any act or deed which may cause nuisance and/ or annoyance to IHMCL/NHAI or to Highway Users.
- iii. The bidder/bank shall take care of all fitting, fixtures and related accessories available at 'Toilets' and immediately after expiry of the period or on sooner termination and handover all fitting, fixtures and related accessories available at 'Toilets', without claiming any right, title or interest of any nature whatsoever in the "Toilet" or any part or portion thereof.
- iv. The bidder/bank arranges to provide adequate staff for Operations and maintenance activities and IHMCL shall not be responsible for any loss, theft or dacoity in relation to any of the activity relating to the 'Toilets'.
- v. The bidder/bank shall be solely responsible for maintenance and cleanliness of toilets.
- vi. The bidder/bank shall take care of disposal of all rubbish, garbage and keeping the premises neat and tidy and will be essential.
- vii. The bidder/bank shall be responsible for the availability of round the clock water supply and electricity for smooth and proper functioning of 'Toilets' and maintenance of surrounding areas.

- viii. The bidder/bank shall be liable to follow the obligations of the operation and maintenance pointed out by IHMCL or any of its representatives from IHMCL/NHAJ found out during routine inspections.
- ix. The bidder/bank shall conduct a regular maintenance program in place for toilet/washroom cleaning to maintain the facilities in a clean, working condition.
- x. The bidder/bank shall ensure that cleanliness and maintenance of Control Center, plaza building and its surrounding areas at the site is maintained on regular basis. Ensuring every facility should be in place at site such as water facilities.

7. E-Notice Module:

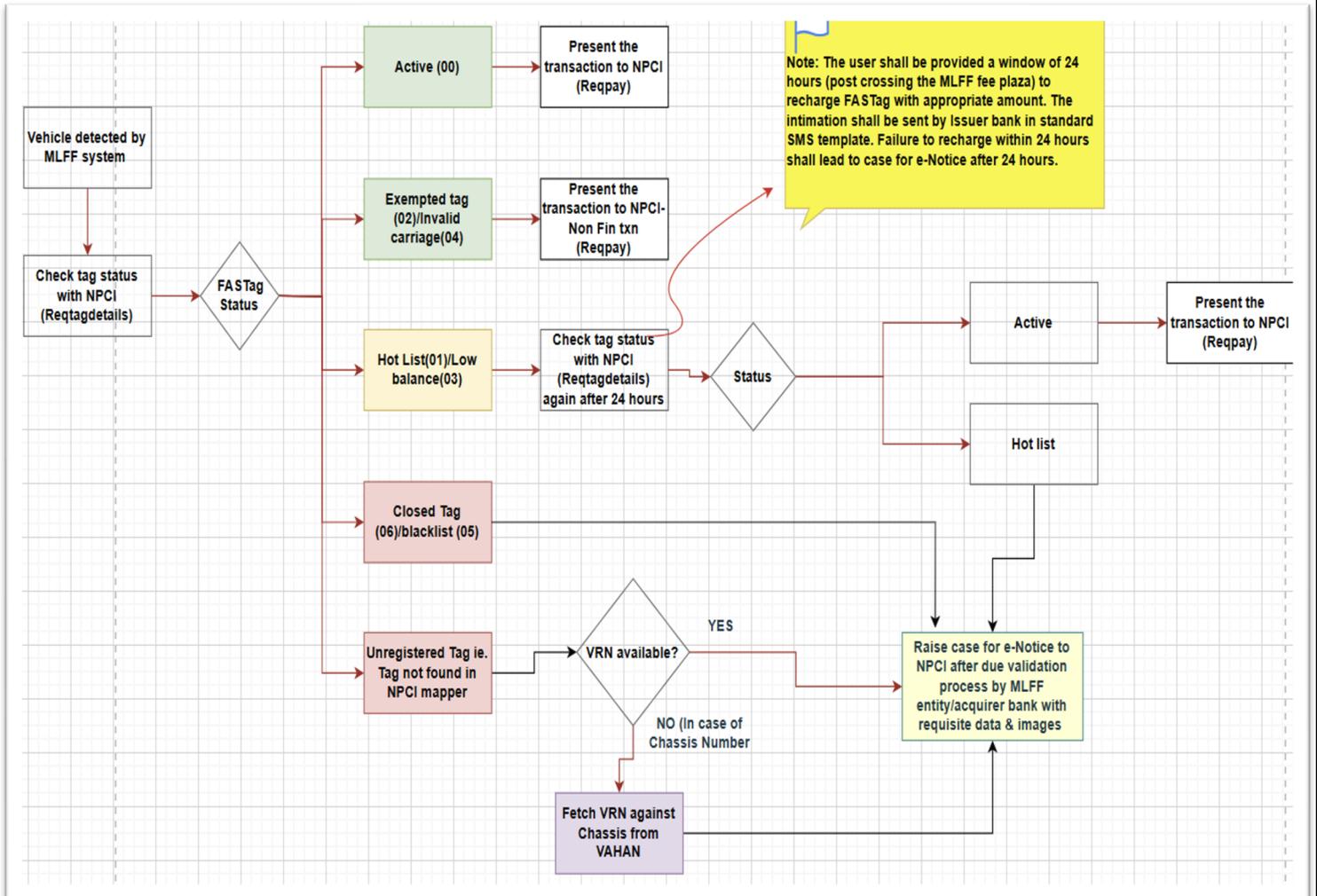
1. Various Scenarios at Vehicle Monitoring, Enforcement And Collection System(VMECS) lanes:

The indicative process flow for Vehicle Monitoring, Enforcement And Collection System(VMECS) transaction processing under various scenarios is provided as below:



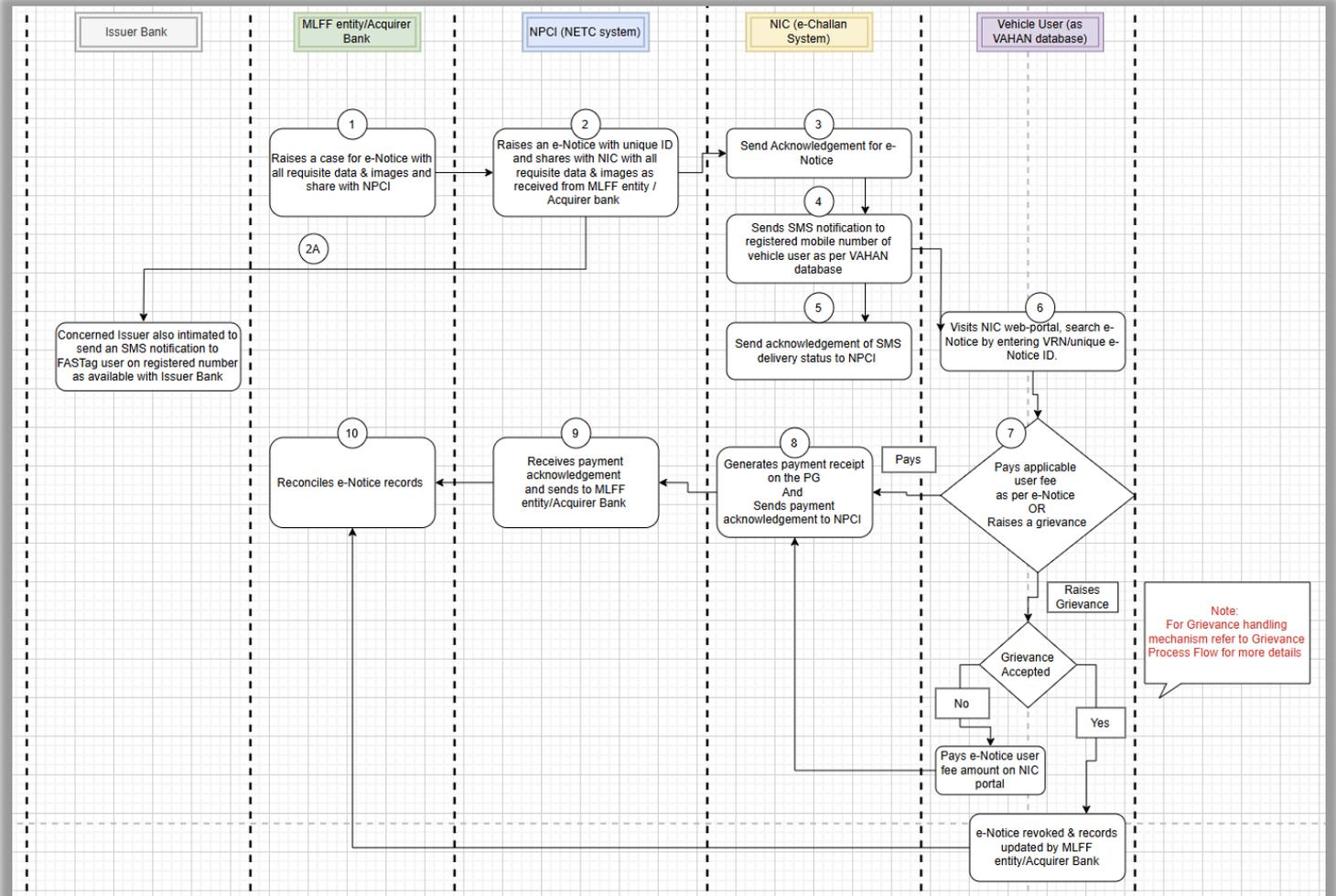
2. Tag transaction flow by Vehicle Monitoring, Enforcement and Collection System(VMECS) entity / Acquirer Bank:

The indicative process flows for initiating and processing the transactions under VMECS on various FASTag Tag status provided below:



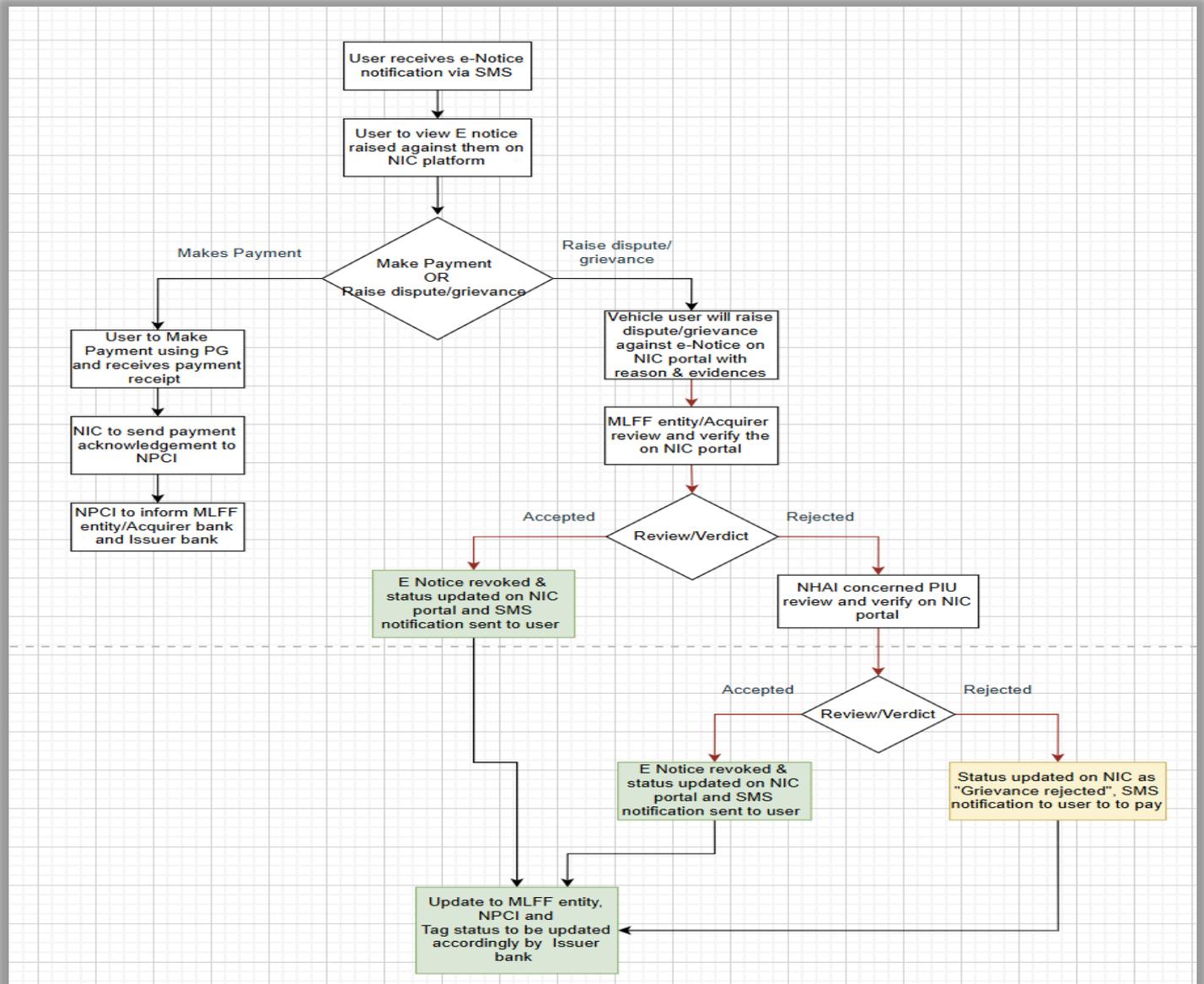
3. E-Notice Process Flow:

The E-Notices under VMECS shall be issued through integration between NPCI (NETC System) and NIC, where an e-notice shall be issued via SMS to the registered mobile number of the eligible vehicle user as per VAHAN database. Simultaneously, it shall also be provisioned that such e-notices are also send to FASTag user via respective issuer bank (of the active tag). The indicative process flow for e-notice is provided as below:



4. Process flow for Grievance Mechanism:

The Grievance mechanism for e-notices under VMECS shall be managed through a designated web-portal developed by NIC. The eligible road user can raise dispute/grievances against the e-notice through this portal within 7-days of issuance of e-notice with supporting evidences. Access for various users/stakeholders shall be provisioned in the web-portal. The indicative process flow for grievance mechanism is provided as below:



5. E-Notice Restriction:

- i. E-Notice shall not be issued for vehicles under exempted categories notified by the authority.
- ii. E-notice shall not be issued for vehicles with any Discount Pass as notified by the authority.
- iii. E-notice shall not be issued for any class of the vehicles as notified by the authority.
- iv. The system shall have appropriate checks to enforce this restriction.

8. VMECS Project

- a. The Vehicle Monitoring, Enforcement and Collection System(VMECS) Project shall broadly include, but not limited to the following components to be provided as per the functional and technical specifications mentioned in Schedule-C:
 1. Radio Frequency Identification (RFID) Reader
 2. Radio Frequency Identification (RFID) Antenna
 3. Automatic Number Plate Reader (ANPR) Camera System and Application
 4. IR Illuminator
 5. Audit Surveillance Camera System
 6. Detectors – Radar
 7. Networking and Communications
 8. Software Application, Dashboard and Portal
 9. VMECS Local and Central Control Center
 10. Power Supply for Field Equipment as well as for VMECS Control Center
 11. Operation & Maintenance (O&M) of the entire VMECS Facility
- b. The quantity and the technical specification of the equipment shall be proposed by the bidder/bank for each VMECS sub-system, unless until specified in this RFP, such that each sub-system fully meets the functional requirement as per the site conditions and SLA requirements.
- c. The entire system should function efficiently as an integrated solution during the entire O&M period.
- d. This RFP describes functional requirements envisaged by IHMCL. In addition, the minimum technical specifications have been prescribed in this document, wherever indispensable. The bidder/bank is responsible for the design of complete project and the system architecture to deliver state-of-the-art solution to IHMCL fully complying to the functional requirement specified in the RFP and site conditions. Any consideration affecting safety, security, redundancy, and compliance to stipulated provision prescribed by Government Authorities is the responsibility of the bidder/bank and shall be duly taken care of to ensure adherence to minimum functional and technical requirement stipulated in this document as well as the SLA parameters.
- e. The 'bidder/bank hereafter may be called as 'bidder/bank shall conduct the field survey, preparation of design drawings and supply of VMECS equipment and materials, spare parts, test equipment, tools and materials, factory inspection (inspection of equipment & materials upon delivery), training, transportation, and site. delivery, implementation and installation, preparation of as-built drawings, testing and commissioning of the VMECS system.

- f. The bidder/bank shall also undertake the works that are not specifically mentioned in this RFP but essential for the efficient implementation and operations of the VMECS System to meet the functional requirements specified in the RFP.
- g. The bidder/bank shall propose the VMECS solution and equipment to fully meet the functional requirements of this RFP. The quantity and the technical specification of the equipment shall be proposed by the bidder/bank for each VMECS sub-system, unless until specified in this RFP, such that each sub-system fully meets the functional requirement as per the site conditions and SLA requirements.
- h. The requirements stated herein shall be construed as minimum requirement and meeting the respective requirements shall not relieve the bidder/bank from the responsibility of supplying the VMECS that functions efficiently as a system and carry out its Operation & Maintenance for the entire Contract Period.
- i. The Bank shall quote for the entire system and facilities on a “single responsibility” basis. bidder/bank obligations mentioned in or to be reasonably inferred from the Contract Documents in respect of the design, manufacture, procurement, implementation, installation, adjustment and testing of the Works and remedying any defect therein and operation and maintenance of entire setup for the contract duration. This includes all requirements under the bidder/bank responsibilities for testing and commissioning of the systems and facilities, and where required by the Contract Documents, the acquisition of all permits, approvals, and license, etc.; the training services and such other items and services as may be specified in the Contract Documents.
- j. The bidder/bank shall be responsible for Integration of VMECS system and sub-systems with the IHMCL Central Command Centre, or TMCC or any other projects as per the requirement raised from time to time by IHMCL or its authorized agency.
- k. Growth and maturity levels – the proposed system shall be capable of meeting the requirements arising due to the increase in traffic in the coming years without any additional cost implication to IHMCL.
- l. The VMECS Software shall perform health monitoring check of all field equipment and generate an equipment downtime report based on the same as per provision of Schedule-C.
- m. In addition to the above requirements the VMECS Solution should include all the functional and technical requirements mentioned in schedule C.
- n. The VMECS solution should cover the entire transaction life cycle, including but not limited to:
 - 1. Capture of information such as FASTag Id, Vehicle Registration Number (VRN) through equipment installed over the VMECS gantry.
 - 2. Integration of VMECS systems and NETC systems.
 - 3. Adherence to all NETC guidelines.
- o. **Integration with CCH:** The acquirer bank must process transactions from the VMECS Local control Server and CCC in an online-only mode, ensuring calculations of charges

to be collected and transaction processing to Central Clearing House (CCH) as per NETC guidelines as amended from time to time. The host system should be capable of supporting both online and offline transaction processing based on internet connectivity availability.

- p. **Compliance with Interface Control Document (ICD) 2.5 or latest:** The acquirer bank must ensure to comply with ICD 2.5 or latest specifications for processing the transactions.
- q. **Integration with TMCC –**
 - i. **All Transactional Data:** The bidder shall integrate the Vehicle Monitoring, Enforcement And Collection System(VMECS) with the Toll Monitoring and Control Centre (TMCC) software or any such software, via API for the purpose of sharing all transactional data.
 - ii. **Equipment Health Monitoring:** All Critical VMECS equipment shall be integrated with TMCC software for monitoring the real time health status. The SLA of VMECS equipment shall be calculated based on TMCC software and through other measures by IHMCL. Bidder shall strictly ensure provisioning of necessary arrangement including but not limited to proper network infrastructure, mapping of correct IP address etc. for reflection of correct uptime of equipment on TMCC dashboard.
- r. **Future integration with advanced technologies:** The Bidder's solution should include API based integration with future tolling technologies like GNSS and NHAJ Applications like Raj Marg Yatra etc. or, Advance Traffic Management System (ATMS), any other similar system at no extra cost

9. Transaction Processing Cases

S.No	Type of Transactions	Processing Cases	Timelines to be settled	Action to be taken	Outcome
1	Clean Transactions (Settled)	For every clean transaction having sufficient balance: In such case transactions amount shall be debited from the end user and collected by the Acquirer Bank on real time account through NETC/ NPCI for further settlement.	As per ICD 2.5 or latest	No e-Notice shall be issued in such cases.	
2	Exempted FASTag(Settled)	For exempted Vehicles - In such cases, VMECS system shall detect the vehicle through RFID reader and ANPR cameras installed at	As per ICD 2.5 or latest	No e-Notice shall be issued in such cases.	

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S.No	Type of Transactions	Processing Cases	Timelines to be settled	Action to be taken	Outcome
		Gantry location and validate it from database. If the database has details of the vehicle under exempted category, then it shall be considered under clean (Settled) transactions.			
3	Blacklisted Transactions (Un-Settled)	Insufficient Balance/Hot listed in FASTag - vehicle shall be considered for issuance of e-notice in case its respective FASTag does not have sufficient balance / Threshold Amount to honour the payment as per NETC guidelines.		e-Notices shall be issued as per e-Notice module given in Schedule-B	If the timelines for issuance of e-notice exceeded, then applicable penalties as defined in SLA is applicable.
4	VRN based transaction processing	System fails to identify an RFID (FASTag) at Gantry Location or there is no FASTag affixed on the vehicle– In such cases, VMECS system shall capture the Vehicle number plate through high resolution Automatic Number Plate Recognition (ANPR) cameras and carry out VRN based transactions through VMECS system (ANPR/Manual)	As per IHMCL /NHAI policy/Authority	If FASTag is issued on the Vehicle-Transaction shall be processed as per Sr. no.1 & 3 above. If FASTag is not affixed, e-Notices shall be issued as per e-Notice module.	If the timelines for issuance of e-notice exceeded, then applicable penalties as defined in SLA is applicable.
		RFID reader & ANPR fails to detect the VRN – In such cases, VMECS system shall detect the vehicle through Audit Surveillance cameras	Within 24 hours	If FASTag is issued on the Vehicle-Transaction shall be processed as per Sr. no.1 & 3 above.	If the timelines for issuance of e-notice exceeded, then applicable penalties as

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S.No	Type of Transactions	Processing Cases	Timelines to be settled	Action to be taken	Outcome
		through Manual Transaction policy as per link provided:		If FASTag is not affixed , e-Notices shall be issued as per e-Notice module.	defined in SLA is applicable.

Note:

1. Detailed information on Settled and Un-Settled Transactions, refer latest NPCI PG Guidelines and ICD 2.5 or latest Guidelines amended time to time.
2. The detailed technical specification document of ETC transaction processing shall be implemented in consultation with by IHMCL and NPCI.

10. Service Level Agreement

- i. The Parties acknowledge and agree that this Agreement is a VMECS Contract, and any breach of the Service Level Agreement (SLA) may result in significant financial losses to the Government, along with inconvenience to the public due to instances like wrong deductions, wrong issuance of e-notices, etc. Given the critical nature of the services provided under this Agreement, the penalties stipulated herein for any breach of the SLA are pre-estimated damages, representing the anticipated revenue losses and the disruption caused to the public.
- ii. The Parties further agree that these penalties are a genuine and reasonable estimate of the losses likely to be incurred due to non-compliance with the SLA by the bank and are intended to compensate the other party for the adverse impact of such breaches.
- iii. SLA shall be calculated separately for each gantry location.

SLA Table

SL #	Parameter	Timelines	Basis of measurement	Penalties
Implementation Phase				
1.	Supply, Installation, Testing and Commissioning, (Go-Live)	02 months from the date of signing of the Contract Agreement.	Signing of Contract Agreement	Rs. 2.5 Lakhs per week for initial two week of delay, further Rs 5 Lakhs per week for next four weeks and Rs 10 Lakhs per week there after upto cumulative penalty Amount of Rs 10 Cr beyond which it would be considered as Breach of Contract.
Operation & Maintenance Phase				
2.	Manpower Availability (Bio metric Attendance is mandatory for deployed Manpower)	Attendance and availability of manpower	8 Hrs. per Shift	a) In case of non-availability of manpower flat 3000 Rs per person/ Day shall be applicable. b) In case, if the non-availability of manpower is consecutively observed by IHMCL for more than 5 days then bidder shall be liable to replace the manpower
Control Centre Equipment and Software				

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SL no.	Parameter	Basis of measurement	Frequency	Penalties
3.	Availability of all VMECS Equipment and Software in Local and Central Control Center	<p>The uptime availability of all equipment of Vehicle Monitoring, Enforcement and Collection System(VMECS) system shall be 99.9% per month</p> <p>The downtime shall be calculated at a cumulative level when any of the equipment is non-operational.</p>	Maximum permissible downtime for all Equipment shall be 44 minutes per month.	<p>a) Beyond 44 mins, a penalty of Rs 1,00,000 per hour shall be applicable.</p> <p>b) The upper limit of the penalty shall be equal to total Performance Security</p> <p>c) Beyond that, IHMCL may consider it as a case of breach and may take necessary actions.</p> <p>If system availability is below than 98%, it shall be considered as a breach</p>

Other Equipment

SL no.	Parameter	Basis of measurement	Frequency	Penalties
4.	E-Notice for end users	The E-Notice shall be generated within 48 hrs as per e-Notice Module post validation by Acquirer bank.	Maximum 48 Hours	<p>Within forty eight hour: No penalty</p> <p>After that per hours- per instance a penalty of Rs 10000/- shall be applicable.</p>

Accuracy - Vehicle Count and classification

SL no.	Parameter	Basis of measurement	Accuracy	Penalties
5	Vehicle Count	97% Vehicle count (on daily basis)	97%	<p>a) For any missing count beyond the permissible limit , a penalty of Rs 100000 shall be applicable Per day.</p> <p>b) Below 95% accuracy, shall be considered as breach.</p>

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				c) IHMCL reserves right to validate the accuracy through third party agency audit.
6	Vehicle Classification	97% Vehicle Classification (on daily basis)	97%	<p>a) For any missing Classification beyond the permissible limit, a penalty of Rs 100000 shall be applicable per day.</p> <p>b) Below 95% accuracy, shall be considered as breach.</p> <p>IHMCL reserves right to validate the accuracy through third party agency audit.</p>

System Accuracy – Instance Wise

SL no.	Parameter	Basis of measurement	Frequency	Penalties
7.	Un availability of Images and video	<p>The vehicle passed through the lane, Acquirer Bank must account for the vehicle through ANPR (front and back) and audit surveillance cameras. Images and videos are not available it will be considered instance of unaccounted vehicle.</p> <p>IHMCL shall get the video from various cameras processed through third-party on sample or complete basis and arrive on count of vehicles that have passed through each lane.</p>	Per instance	Per Instance penalty shall be Rs 10,000 is applicable along with revenue loss incurred from unidentified vehicles.
8	Remote video Check	IHMCL/Authority should be able to access any remote access through third party software or	Per instance	<p>Rs. 5000/- per camera per day.</p> <p>Same camera will not be checked again in the same day if violation found and recorded</p>

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		<p>overview through IP and authentication details provided by NHAI/IHMCL/Authority.</p> <p>If for any reason (wrong, IP Password, network downtime etc.) the footage is not visible, or photo is not available in ANPR, Audit surveillance Camera then it will be considered a violation.</p> <p>Simple screenshot with a date time visible shall be enough to prove violation by IHMCL/NHAI/ Authority.</p>		
9	API based data sharing with IHMCL MIS/ERP system	API or uploads-based sharing of reports from software to IHMCL ERP/MIS as prescribed in the contract and any notification / circular issued from time to time.	Per instances	Per Instance penalty shall be Rs 3000 for data sharing missed by Acquirer Bank.
10	Incorrect Manual Transaction	In case of any incorrect VRN based manual transaction done as per NHAI Manual Transaction Policy	Per instance	<p>A penalty of Rs 1,00,000 per instance as per provision of Manual Transaction Policy of IHMCL</p> <p>IHMCL reserves right to validate the accuracy through third party agency audit</p>
11	Wrong e-notices	In case of any wrong e-notices issued	Per instance	<p>A penalty of Rs 10,000 per instance shall be applicable on each wrong e-Notices issued.</p> <p>IHMCL reserves right to validate the accuracy through third party agency audit</p>

12	Improper Validation of Vehicle Details through VAHAN / SARATHI	In case the Bidder fails to validate detected vehicle details through VAHAN/SARATHI, or incorrect vehicle information is displayed for a detected vehicle, or wrong vehicle attributes are fetched from National Informatics Centre systems for computation of applicable charges, due to system errors, data mismatch, or API handling failures attributable to the Bidder.	Per instance	A penalty of Rs. 10,000 per instance shall be levied. Repeated occurrences (more than ten (10) instances in a month) may trigger system audit and shall be considered as a breach. <i>Note: In the event of any incorrect computation resulting in wrong charging of amount from eligible vehicles, the Bidder shall ensure that the collected amount is refunded to the affected user within T+1 days, where T is the date on which the case is reported to or observed by the Bidder.</i>
12	Delay in remit the collected charges	Penalty shall be imposed as per Clause under Schedule-B (3)(d).		

Spare Availability

SL no.	Parameter	Basis of measurement	Accuracy	Penalties
13	Availability of 10% spare of critical equipment <ul style="list-style-type: none"> • RFID Reader & Antenna, • Radar • Audit Surveillance Camera • ANPR Camera 	Audit at any point of time. IHMCL conduct surprise inspection for validation/ verification of spares	100%	Each violation/instance shall attract the penalty of Rs. 3,00,000/-.

Note:

- i. Penalties shall be concurrent and cumulative, meaning multiple penalties can be applied for different types of non-compliance within the same period.
- ii. In case of any system issues/ downtime, the recoverable damages shall be the actual

revenue loss or the applicable SLA penalty amount, whichever is higher.

The Service Level Agreement (SLA) shall be calculated for each Gantry Location system.

11. **Consistent Penalty**

If the penalty is more than 10% of Cash performance security for 3 consecutive months, it may be considered as breach and IHMCL reserves the right to terminate the contract and forfeit the PBG.

12. **Data Retention and Handover**

a) **Data Retention Period:**

The Successful Bidder shall ensure the retention of the following data for the specified durations throughout the Contract Agreement:

- i. **ANPR and Audit Surveillance Camera Images:** Minimum retention period of **30 days**
- ii. **Video Recordings:** Minimum retention period of **30 days**.
- iii. **Transaction Data and Reports (as per Schedule-B):** Retention throughout the Contract Agreement.
- iv. **Images, videos of all e-Notice cases** and other dispute cases shall be retained till the time the e-Notice or such case is disposed of.

b) **Data Handover:**

Upon the expiry or termination of the Contract Agreement, the Successful Bidder shall hand over all retained transaction data, including images, videos, and reports, in a complete and organized manner to the Authority

c) **Data Access and Evidence Provision:**

- a. During the contract period, the Successful Bidder shall provide requisite image evidence and video recordings to the Authority within the defined storage limits upon request.
- b. The data shall be made available promptly to assist the Authority in its operations, audits, or legal proceedings.

d) **Compliance and Penalty:**

The Successful Bidder shall ensure compliance with the above requirements. Non-compliance may result in penalties or other actions as deemed appropriate by the Authority.

e) **Confidentiality and Security:**

The Successful Bidder shall ensure the confidentiality and security of the retained data, preventing unauthorized access, misuse, or loss during the retention and handover period.

13. **Minimum Operation & Maintenance (O&M) Manpower**

- (i) The O & M period after the successful completion of works shall include Operation & Maintenance of the entire VMECS as per the Service Level Agreement (SLA) with Qualified Manpower mentioned in Clause 2.12 of Schedule-C including supply of adequate spares, parts, consumables, and maintenance equipment required for the

facility. The Bidder shall maintain required spare parts to maintain required service levels. The minimum Operations & Maintenance manpower requirement as per Clause 2.12 of Schedule-C is clarified as below. If acquirer bank feels more manpower shall be required to meet the SLAs, they may consider in their commercials.

#	Operation & Maintenance (O&M) Manpower	Location	Minimum Manpower requirement
1.	Project Manager	Central Control Centre	1
2.	System Maintenance Engineer	Central Control Centre	3 in each shift + 1 reliever
3.	Auditor/Transaction Validator	Central Control Centre	7 in each shift + 2 reliever
4.	System Maintenance Engineer	Local Control Centre	3 in each shift + 1 reliever
5.	Guard	Local Control Centre	3 in each shift + 1 reliever

Note: Please refer clause 2.12 of Schedule-C for detailed qualification of manpower

The Manpower deployed shall be dedicated for this project and shall not be deployed for any other project or assigned any other similar project.

- (ii) The Bidder shall have sufficient infrastructure and capability to keep/store spares required for maintenances and will always during the contract period maintain sufficient inventory of spares and consumables for operating and maintaining the VMECS, and to meet the Service Level Agreement.
- (iii) Before the start of O&M Period, the Bidder shall deploy the O&M Personal mentioned at Schedule-C with prior approval of the Authority.

Schedule - C

Standards & Specifications

1 Standards and Specification of all VMECS Sub System

Note:

a) All the specifications and compliance requirements should be either on OEM Letterhead or datasheet published by OEM on their website which will be countersigned by the Acquirer bank and the same shall be submitted during bid submission along with Manufacturer Authorization Form (MAF) issued by respective OEMs mentioning compliance requirement as per RFP number and date.

(b) The specifications given in the tables below are bare minimum. The bidders shall design their solution with the given or better specifications to meet the scope of work and SLA mentioned in the RFP without any additional financial implication to IHMCL.

(c) The type of equipment mentioned in the RFP are bare minimum. In case the solution designed by Bidder requires additional equipment (e.g. thermal camera etc) to meet the scope of work and SLA, the same should be provided in the solution without any additional financial implication to IHMCL.

1.1 RFID Reader

#	Parameter	Minimum Specifications
1	Frequency	UHF 865-868 MHz (configurable)
2	Supported Protocols	ISO 18000 6C/63, RAIN RFID/Gen2v1
3	Conducted Power	+10 to +33 dBm (33 dBm is recommended for free flow tolling)
4	Interference Rejection	Dense Interrogator Mode
5	Reader Speed Detection	100 km/hr. or higher.
6	Antenna ports	4 ports, N-type Female, switching time < 10 ms
7	Time synchronization	NTP /PPP
8	Communication Interface	10/100 BaseT, Ethernet, CAN, RS232, USB or better
9	Upgradeable Firmware	Yes
10	Operating Temperature	-10°C to +55°C (Ambient)

#	Parameter	Minimum Specifications
11	Storage Temperature	-10°C to +55°C
12	Relative Humidity	95%, non-condensing
13	Power	24DC or compatible
14	Regulatory	BIS / FCC
15	IP Rating	IP 65
16	Display	LED (Power, Transmit, Detect, LAN)
17	GPIO	2 Inputs, 2 Outputs
18	Memory	Persistent data storage for up to 10,00,000 unique transactions
19	Network Services	DHCP, HTTP, SNTP
20	Supported Regions	FCC, EN, FCC and RoHS
21	Safety	UL, IEC, EN
22	Preferred OEMs	SSI, Tag Master, Kathrein, Zebra Or an OEM whose RFID Reader product has been deployed in a Multilane Free Flow Tolling (Vehicle Monitoring, Enforcement And Collection System (VMECS)) System, either in India or internationally, and has been operational for a minimum of one (1) year as of the bid submission date. Note: The product should be complaint with Clause 3.1.1 of the RFP.

1.2 RFID Antenna

#	Parameter	Minimum Specifications
1	Frequency Range	UHF 865-868 MHz (configurable)
2	Gain	10 dBi ± 1 dB
3	Return Loss	Below -15 dB
4	3 dB Beam width	-
5	Polarization	Linear or Circular
6	Front to Back Ratio	Below -30 Db
7	Maximum Input Power	6 Watt
8	Impedance	50 Ω
9	Lightning Protection	DC Grounded
10	Operation temperature	-10°C to +55 °C
11	Storage temperature	-10°C to +55 °C
12	IP Rating	IP 65
13	Connector	N-Type Female or any better
14	RoHS Compliance	Yes
15	Mounting Kit	Included
16	Preferred OEMs	<p>SSI, Tag Master, Kathrein, Zebra</p> <p>Or an OEM whose RFID Antenna product has been deployed in a Multilane Free Flow Tolling (Vehicle Monitoring, Enforcement And Collection System(VMECS)) System, either in India or internationally, and has been operational for a minimum of one (1) year as of the bid submission date.</p> <p>Note: The product should be complaint with Clause 3.1.1 of the RFP</p>

1.3 Audit Surveillance Camera

#	Parameter	Minimum Specification
1	IR Illumination Source	High power IR without any visual distractions to the road user
2	Lane Coverage	Sufficient number of cameras to cover all lanes including paved/earthen shoulder
3	IR Effective Range	150M (Overview)
4	Speed Limit	150 km/hr. or higher.
5	Image Sensor	1/1.8" or better
6	Effective Pixels	2048 x 1536
7	Optical Format	1/1.8" or better
8	Min. Illumination	Color: 0.1Lux / BW: 0 Lux (IR ON)
9	S/N Ratio	More than 50 db
10	Electronic Shutter	1/32000 to 1s or better
11	Frame Rate	Up to 50/60 fps (50/60 Hz)
12	Lens	12.0 ~ 22.0 mm or better as per requirement.
13	Video Compression	H.265, H.264, M-JPEG, JPEG
14	Protocols	HTTP, RTP / RTSP (Uni / Multicast), TCP / IP(v4/v6), UDP, FTP, Telnet, HTTPS, PPPoE, SNMP, PAP / CHAP / RARP / ARP / DHCP, NTP, SMTP client, uPnP & etc.
15	Images Setting	Adjustable image size, quality, and bit rate Time/Date stamp and text caption overlay Configurable brightness, contrast, saturation, sharpness, white balance, and exposure AGC / AWB / AES / BLC / WDR should be at least 120 Db
16	Standard	ONVIF (Profile S & G/T/M)
17	Operating Temperature	-10 ~ +55°C

#	Parameter	Minimum Specification
18	Power Option	POE/POE+ /POE++/ External Power supply (Industrial Grade Power Supply)
19	Certification	CE / FCC / BIS Certification, NEMA 4X / IP67 (Full metal Casing)
20	Chipset/Processor	The Camera should not have Hisilicon chipset/Processor

1.4 Automatic Number Plate Recognition Systems

#	Parameter	Minimum Specifications
1	General	The Camera should have feature and functionalities to capture number plate and video evidence from t-5 to t+5 sec of the violation at maximum speed of 150KM/Hr or higher and should also be recorded (t being the instant at which the infraction occurred). The system should have capability to detect both Retroreflective and Non-Retroreflective number plates for the vehicles during the day as well as nighttime as per the accuracy levels specified. System should be capable of generating a video in any of the standard industry formats.
2	Automatic Number Plate Recognition (ANPR) Camera	
a	Sensor Type	Progressive scan (CMOS) Day / Night Camera, Global shutter
b	Resolution	3 Megapixels or better
c	Speed Detection	speed Upto 150 km/hr. or higher.
d	Video Compression:	H.264, H.265
e	Normal Horizontal Field of View	Sufficient number of cameras to cover all lanes including paved/earthen shoulder
f	Typical Range	40 meters. or better
g	Operating Temp.	-10°C to +55°C
h	Auto Iris Control	Yes
i	Protection rating	NEMA 4X / IP-IP66 or Better (protection against water and dust ingress), Resistance to corrosion in harsh environments. Certification: CE / FCC / BIS Certification, NEMA 4X / IP67 (Full metal Casing)
j	Communication	10/ 100/ 1000 Base-T Ethernet interface Static IP/ DHCP support for IP address assignment & network configuration Image transfer over Ethernet (FTP and/ or TCP/IP) NTP (network time protocol) time synchronization
k	Data Processing	Built-in processor running Linux OS Advanced image processing functions Image buffering, Data/ Time stamp and image tags
l	MTBF	45,000 Hours

#	Parameter	Minimum Specifications
l	Power	24/48V DC or compatible
m	Shutter Speed	1 sec. to 1/100,000 sec. or better shutter speed to cater to capturing number plate and video evidence
n	Frame Rate	Upto 50/60 fps with controllable bit rate and frame rate.
o	Chipset/Processor	The Camera to be provided by the bidder should not have Hisilicon chipset/Processor.
p	Camera Housing	The camera shall be housed in a suitable housing to protect them from solar radiation, UV, dust, and rain. The field of view of the camera shall not be obstructed by the housing. Picture quality or optical performance shall not be degraded by the housing. The Housing shall have IP-67/IP-68 rating for Weather-proof with better dust & dirt protection, and NEMA 4X-rating or IK10 or higher rating for Vandal-proof. The housing shall have built-in heater and blower.
q	Certification	CE/ FCC/ BIS Certification, NEMA 4X, IP67 (Full metal Casing),
3.	On site – Network Connectivity & Electrical Interface	
a.	Data Storage on site	The system should be equipped with appropriate storage capacity for minimum 24-hour recording, with overwriting capability. The images should be stored in tamper proof format only.
b.	Network Connectivity	Wired/GPRS based wireless technology with 3G /4G upgradable to 5G capability.
c.	The system should be capable of working in ambient temperature range of -10°C to +55°C	
d.	Lightening arrester shall be installed for safety of system (As per BIS standard IS 2309 of 1989) on the structure. SPD should be installed at junction box at each location.	
e.	The housing(s) should be capable of withstanding vandalism and harsh weather conditions and should meet IP66, IK10 standards (certified).	
4.	Video Recording	
a.	The system should be capable of continuous video recording in control center in Unified Storage for 30 days. It should be noted that at any point of time the local storage at the base station should have the data of previous 30 days.	
b.	Direct extraction through any physical device like USB, Hard disk shall be possible through Unified Storage.	

#	Parameter	Minimum Specifications
c.	The Camera shall have inbuilt SD card slot and shall be provided with at least 128 GB class 10 SD card.	

1.5 IR Illuminator

#	Parameter	Minimum Specifications
1.	Illumination Source	High power IR without any visual distractions to the road user
2.	Lane Coverage	Beam angle options Beam pattern Upto 90 or better
3.	Trigger Modes	Available
4.	Pulse with control	Available
5.	Communication Control	Full User Control on Illuminator parameters and strobe status output by USB/RS 485/RS 422/ANPR Camera system
6.	Connections	-
7.	Cable	Cable for Connector to ANPR Camera IO system is included (shielded, outdoor rated, terminated with the connector to fit with ANPR Camera system)
8.	Virtualization	Rugged, compact, corrosion-resistant enclosure IP66 (protection against water and dust ingress)
9.	Operating Temperature	-10°C to +55°C [heated enclosure]
10.	MTBF	90,000 hours
11.	Illumination Range	Minimum 50 Mtrs and should be adjustable
12.	Protection Function	Transient over peak suppression
13.	Power	Either POE+ or 24V DC or compatible
14.	Weight	Maximum of 4 kg
15.	Certifications	FCC Compliant, RoHS Compliant, CE Compliant / BIS
16.	IP Rating	IP 66 Rugged

1.6 Deleted

1.7 Detector-Radar

#	Parameter	Minimum Specification
1	Objects Tracking	Up to 256 Objects
2	Lane Coverage	Up to 4 lanes with single sensor
3	Detection Range	Up to 300 m
4	Speed Detection Range	150 kmph or higher
5	Speed Detection Accuracy	<±1%
6	Sensor Frequency	76 - 81 GHz
7	EIRP	Up to 36 dBm
8	Measurement	Cartesian (x, y, z) coordinates, Azimuth, Elevation, Speed
9	Communication Interfaces	Ethernet /USB, RS 485
10	Refresh time	24 MS
11	Power Supply	12V or Compatible
12	Power Consumption	10-40W
13	Operating Temperature	-10 to 60 ° C
14	Environment Protection	IP67
15	Certification	Speed detection accuracy of the system should have been Certified and tested for speed accuracy from any authorized agency by Government.

1.8 Local Server

BIDDER can supply the server as per the requirement to run the overall system. If required, the bidder must upgrade the server to achieve the desired outcome as per the requirement.

#	Parameter	Minimum Specifications
1.	Processor	Latest series/ generation of 64-bit x86 processor(s) with Twelve or higher Cores, Intel/ AMD Processor speed should be a minimum of 2.4 GHz. Minimum 2 processors per each physical server
2.	RAM	Minimum 64 GB or higher configured Memory per physical server
3.	Application Storage	Minimum 30TB storage available disk space. Minimum 7 days of storage should be available on local server, which shall be overwrite after every 7 days.
4.	Network interface	2 X 10 GbE LAN ports for providing Ethernet connectivity. Optional: 1 X Dual-port 16Gbps FC HBA for providing FC connectivity The required connectivity can be provided using converged FCOE ports on servers
5.	Power supply	Dual Redundant Power Supply
7.	RAID support	As per requirement/solution
8.	Operating System	Licensed version of 64-bit latest version of Linux/ Unix/Microsoft® Windows based Operating system)
9.	Form Factor	Rack mountable
10.	Virtualization	Shall support Industry standard virtualization hypervisor like Hyper- V, VMWARE and Citrix. Bidder will decide.
11.	Operating Temperature	5 degree C to 40 degree C, should be an Industrial grade model

Note: Local servers are required to be provided as per the RFP provisions. However, bidders may additionally propose redundant MeitY empanelled cloud-based infrastructure as part of their solution design, provided it meets all functional, performance, and availability requirements specified in the RFP.

1.9 Storage

#	Parameter	Minimum Specifications
1.	Solution Type	IP Based/iSCSI/FC/NFS/CIFS/N2N
2.	Storage	Storage Capacity should be minimum 125 TB or more as per requirement (usable, after RAID configuration) To store all types of data (Data, Voice, Images, Video, etc) Storage system should be capable of upward scalability. <i>Note: Storage space to be finalized during the design phase.</i>
3.	Hardware Platform	Rack mounted form-factor Modular design to support controllers and disk drives expansion
4.	Controllers	At least 2 Controllers in active/active mode. The controllers / Storage nodes should be upgradable seamlessly, without any disruptions / downtime to production workflow for performance, capacity enhancement and software / firmware upgrades.
5.	RAID support	Should support various RAID levels
6.	Cache Memory	Minimum 256 GB per controller of useable cache memory across all controllers. If cache memory is provided in additional hardware for unified storage solution if applicable, then cache memory must be over and above 256 GB per controller.
7.	Redundancy and High Availability	The Storage System should be able to protect the data against single point of failure with respect to hard disks, connectivity interfaces, fans, and power supplies.
8.	Management software	All the necessary software (GUI Based) to configure and manage the storage space, RAID configuration, logical drives allocation, snapshots etc. are to be provided for the entire system proposed. Licenses for the storage management software should include disc capacity/count of the complete solution and any additional disks to be plugged in in the future, upto max capacity of the existing controller/units. A single command console for entire storage system. Should also include storage performance monitoring and management software. Should provide the functionality of initiative-taking monitoring of Disk drive and Storage system for all disk failures.

#	Parameter	Minimum Specifications
		Should be able to take "snapshots" of the stored data to another logical drive for backup purposes
9.	Data Protection	The storage array must have complete cache protection mechanism either by de-staging data to disk or providing complete cache data protection with battery backup for up to 4 hours
10.	Storage Timelines	<ol style="list-style-type: none"> 1. Successful bidder shall keep the storage of complete data (Images and videos). Images for 180 days and Videos for 30 days. 2. Successful bidder shall keep the storage of complete data (images/video recording) on storage devices, in case of any disputed/discrepancy, till the end of the contract period. 3. Any type of additional storage requirement shall be borne by the bidder.

1.10 Monitoring Workstations

#	Parameter	Minimum Specifications
1.	Processor	Latest generation 64bit X86 Quad core processor(3Ghz) (preferably Core i7 or better processors)
2.	Chipset	Latest series 64bit Chipset
3.	Motherboard	OEM Motherboard
4.	RAM	Minimum 8 GB DDR3/4/5 ECC Memory @ 1600 Mhz. Slots should be free for future upgrade. Minimum 4 DIMM slots, supporting up to 32GB ECC
5.	Graphics card	Minimum Graphics card with 2 GB video memory (non- shared)
6.	HDD	2 TB SATA-3 Hard drive @7200 rpm with Flash Cache of 64GB SSD. Provision for installing 4 more drives.
7.	Media drive	NO CD / DVD drive
8.	Network interface	10/100/1000 Mbps autosensing on board integrated RJ-45 Ethernet port.
9.	Audio	Line/Mic IN, Line-out/Spr Out (3.5 mm)
10.	Ports	Minimum 6 USB ports (out of that 2 in front),
11.	Keyboard	104 keys minimum OEM keyboard

#	Parameter	Minimum Specifications
12.	Mouse	2 button optical scroll mouse (USB)
13.	PTZ joystick controller (With 2 of the workstations in CC)	PTZ speed dome control for IP cameras Minimum ten programmable buttons Multi-camera operations Compatible with all the camera models offered in the solution. Compatible with VMS /Monitoring software offered
14.	Monitor	27" TFT LED monitor, Minimum 1920 x1080 resolution, 5 ms or better response time, TCO 05 (or higher) certified
15.	Certification	Energy star 5.0/BEE star certified
16.	Operating System	64-bit pre-loaded OS with recovery disc
17.	Security	BIOS controlled electro-mechanical internal chassis lock for the system.
18.	Antivirus feature	Advanced antivirus, antispymware, desktop firewall, intrusion prevention (comprising of a single, deployable agent) which can be managed by a central server. (Support, updates, patches and errata for the entire contract/ project period)
19.	Power supply	SMPS; Minimum 400-watt Continuous Power Supply with Full ranging input and APFC. Power supply should be 90% efficient with EPEAT Gold certification for the system.

Note:

1. Bidder shall be responsible to disable all ports/interfaces from all workstations installed at site.

1.11 Firewall

#	Parameter meter	Minimum Specifications
Performance		
1.	Firewall throughput	5 Gbps or more
2.	IPS throughput	Minimum 1 Gbps
3.	NGFW throughput	Minimum 1 Gbps
4.	Threat Protection throughput	Upto 145 Mbps
5.	Concurrent	10,00,000 or more
6.	IPsec VPN	2000 Mbps or more
7.	SSL decryption + Threat Protection	1000
Physical Interfaces		
8.	Storage	64 Gb SSD or more
9.	Ethernet interfaces	8 GbE copper or more, 1 SFP port
10.	I/O ports (rear)	2 x USB 2.0/USB 3.0
11.	Power	DC: 12/24V, 100-240VAC or compatible, 50-60 Hz
Environment		
12.	Power consumption	10-50W
13.	Operating temperature	0-40°C (operating) -10 to +70°C (storage)
14.	Humidity	10%-90%, non-condensing
Physical specifications		
15.	Mounting	Rackmount
16.	Dimension	Suitable for Network Rack
17.	Warranty	The proposed solution shall support 3 years Replacement and 24*7 TAC support.
18.	Support	The proposed solution should support Content filtering, Web Search Filtering, Intrusion Prevention, Threat Protection, Advanced Malware Protection and Active Directory Integration

1.12 Server Rack

#	Parameter	Minimum Specifications
1.	Type	<p>27 / 42 U racks mounted on the floor</p> <p>Floor Standing Server Rack – 27 / 42 U with Heavy Duty Extruded Aluminium Frame for rigidity. Top cover with FHU provision. Top & Bottom cover with cable entry gland plates. Heavy Duty Top and Bottom frame of MS. Two pairs of 19" mounting angles with 'U' marking. Depth support channels - 3 pairs with an overall weight carrying Capacity of 500Kgs.</p> <p>All racks should have mounting hardware 2 Packs, Blanking Panel.</p> <p>Stationery Shelf (2 sets per Rack)</p> <p>All racks must be lockable on all sides with unique key for each rack.</p> <p>Racks should have Rear Cable Management channels, Roof, and base cable access.</p> <p>The depth of the server rack should be 1200MM</p>
2.	Wire managers	Two vertical and four horizontals
3.	Power Distribution Units	<p>Two per rack</p> <p>Power Distribution Unit - Vertically Mounted, 32AMPs with 25 Power Outputs. (20 Power outs of IEC 320 C13 Sockets & 5 Power outs of 5/15 Amp Sockets), Electronically controlled circuits for Surge & Spike protection, LED readout for the total current being drawn from the channel, 32AMPS MCB, 5 KV AC isolated input to Ground & Output to Ground</p>
4.	Doors	<p>The racks must have steel (solid / grill / mesh) front / rear doors and side panels. Racks should NOT have glass doors / panels.</p> <p>Front and Back doors should be perforated with at least 63% or higher perforations.</p> <p>Both the front and rear doors should be designed with quick release hinges allowing for quick and easy detachment without the use of tools.</p>
5.	Fans and Fan Tray	<p>Fan 90CFM 230V AC, 4" dia (4 Nos. per Rack)</p> <p>Fan Housing Unit 4 Fan Position (Top Mounted) (1 no. per Rack) - Monitored - Thermostat based - The Fans should switch on based on the Temperature within the rack. The temperature setting should be factory settable. This unit should also include - humidity & temperature sensor</p>
6.	Metal	Aluminium extruded profile

#	Parameter	Minimum Specifications
7.	Side Panel	Detachable side panels (set of 2 per Rack)

1.13 Field Junction Box

#	Parameter	Minimum Specifications
1.	Size	Suitable size as per site requirements to house the field equipment
2.	Cabinet Material	Powder coated CRCA sheet/ Stainless steel
3.	Material Thickness	Min 1.2mm
5.	Number of Locks	Two
6.	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
7.	Mounting	On Camera Pole / Ground mounted on concrete base
8.	Form Factor	Rack Mount/DIN Rail
9.	Other Features	Rain Canopy, Cable entry with glands and Fans/any other accessories as required for operation of equipment's within junction box.

1.14 Edge Level Switch

#	Parameter	Minimum Specifications
1.	Type	Managed Outdoor Industrial grade switch
2.	Total Ports	<p>1) Minimum 24 port 1 Gbps PoE/PoE+ and 2 No's fiber Uplink ports of 10G.</p> <p>i. May require higher port density at some locations, depending upon site conditions.</p> <p>ii. May require fiber ports at some locations, depending upon site conditions/distances.</p>
3.	PoE Standard	IEEE 802.3af/ IEEE 802.3at or better,

#	Parameter	Minimum Specifications
		370 watts Power budget or more, Dynamic PoE allocation
4.	Protocols	1) IPV4, IPV6 2) Support 802.1Q VLAN 3) DHCP support 4) IGMP 5) SNMP Management 6) Should support Loop protection and Loop detection. 7) Should support Ring protection. 8) End point Authentication 9) Should support NTP
5.	Access Control	1) Support port security 2) Support 802.1x (Port based network access control). 3) Support for MAC filtering
6.	PoE Power per port	Sufficient to operate the CCTV cameras/edge devices connected
7.	Enclosure Rating	IP 30 or equivalent Industrial Grade Rating (to be housed in Junction box)
8.	Operating Temperature	0 -55 C or better Industrial Grade Rating
9.	Multicast support	IGMP Snooping V1, V2, V3 MLD Snooping V1, V2
10.	Management	Switch needs to have RS-232/USB/RJ45 console port for management via a console terminal or PC. Web GUI NTP Syslog for log capturing. SNMP V1, V2, V3
11.	Compliance	UL/EN/IEC or equivalent
12	Power Supply	Inbuilt Dual Power Supply In built Dual Fan

#	Parameter	Minimum Specifications
13	Switching Capacity	30 Gbps or better

1.15 Core Switch

#	Parameter	Minimum Specifications
1.	Ports	<ol style="list-style-type: none"> 1) 24 port 1G Ethernet ports, PoE/PoE+ port and 2 No's fiber Uplink ports of 10G. 2) All ports can auto-negotiate between all allowable speeds, half-duplex or full duplex and flow control for half-duplex ports.
2.	Switch type	Layer 3
3.	MAC	Support 32K MAC address.
4.	Backplane	Capable of providing wire-speed switching
5.	Switching Capacity	48 Gbps or better
6.	Port Features	Must support Port Mirroring, Port Trucking and 802.3ad LACSP Link Aggregation port trunks
7.	Flow Control	Support IEEE 802.3x flow control for full-duplex mode ports.
8.	Protocols	<ol style="list-style-type: none"> 1) IPV4, IPV6 2) Support 802.1D, 802.1S, 802.1w, Rate limiting. 3) Support 802.1X Security standards 4) Support 802.1Q VLAN encapsulation, IGMP v1, v2 and v3 snooping. 5) 802.1p Priority Queues, port mirroring, DiffServ 6) DHCP support 7) Support up to 1024 VLANs. 8) Support IGMP Snooping and IGMP Querying 9) Support Multicasting 10) Should support Loop protection and Loop detection, 11) Should support Ring protection

#	Parameter	Minimum Specifications
9.	Access Control	<ol style="list-style-type: none"> 1) Support port security 2) Support 802.1x (Port based network access control). 3) Support for MAC filtering. 4) Should support TACACS+ and RADIUS authentication
10.	VLAN	<ol style="list-style-type: none"> 1) Support 802.1Q Tagged VLAN and port based VLANs and Private VLAN 2) The switch must support dynamic VLAN Registration or equivalent. 3) Dynamic Trucking protocol or equivalent
11.	Protocol and Traffic	<ol style="list-style-type: none"> 1) Network Time Protocol or equivalent Simple Network Time Protocol support 2) Switch should support traffic segmentation. 3) Traffic classification should be based on user-definable application types: TOS, DSCP, Port based, TCP/UDP port number
12.	Management	<ol style="list-style-type: none"> 1) Switch needs to have a console port for management via a console terminal or PC. 2) Must have support SNMP v1, v2 and v3. 3) Should support 4 groups of RMON. 4) Should have accessibility using Telnet, SSH, Console access, easier software upgrade through network using TFTP etc. Configuration management through CLI, GUI based software utility and using web interface
13.	Resiliency	<ol style="list-style-type: none"> 1) Dual load sharing AC and Primary power supplies 2) Redundant variable-speed fans

1.16 Enterprise Management System

- 1) To ensure that Vehicle Monitoring, Enforcement and Collection System(VMECS) are delivered at the performance level envisaged, it is important that an effective monitoring and management system be put in Place. It is thus proposed that a proven Enterprise Management System (EMS) is proposed by the bidder for efficient management of the system, reporting, SLA monitoring and resolution of issues. Various key components of the EMS to be implemented as part of this engagement are.
 - I. Network Monitoring System
 - II. Server Monitoring System

III. Helpdesk System

- 2) The solution should provide a unified web-based console which allows role-based access to the users.
- 3) The Proposed EMS shall be capable to monitor all SLA defined in the RFP.
- 4) The Proposed EMS shall be able to provide reports in pdf, excel and CSV file format.

1.17 Video Wall & Controller

#	Parameter	Minimum Specifications
1.	Technology	Solid state LED illumination technology or LED based Technology or equivalent
2.	Display Unit	The Visual Display Unit / Rear Projection Module
3.	Screen Size	55" cubes in a 4 X 2 display
4.	Resolution	Full high definition (1920X1080)
5.	Brightness	Uniformity of 85%
6.	Contrast Ratio	Min. 1400 : 1
7.	Wall Uptime	Min. 60,000 hours of rated life (Expected to be operational 24X7)
8.	Viewing Angle	180 degree viewing angle
9.	Screen to Screen gap	The inter screen gap should be <= 1 mm
10.	Other Features	RS232 control (with loop-through) On Screen Display (OSD) IR remote control flicker free image on the Large Screen Graphics Wall
11.	Input	IP Based
12.	Same OEM for Controller and Display	Display Controller and management software shall be from the same OEM. The number of outputs shall be capable to drive number of cubes to achieve the resolution.

2. Functional Requirements of all VMECS Sub System

2.1 RFID Reader

The primary function of automatic identification technology is to identify vehicles passing through the road to enable collection of applicable charges via FASTag. This is achieved using RFID readers and antenna installed on VMECS gantries.

Operational Overview:

1. FASTag Detection:

- a) RFID readers emit signals to scan and read the FASTag affixed to vehicles.
- b) The information from the detected FASTag is processed for initiating toll payments.

2. Installation and Coverage:

- a) RFID readers are mounted on Vehicle Monitoring, Enforcement and Collection System(VMECS) gantries or lanes for optimal coverage.
- b) A single RFID reader can effectively cover up to two lanes.

3. Data Transmission:

- a) Identification data from the FASTag is transmitted via radio frequency to the RFID reader.
- b) The RFID reader forwards the data to the controller unit through cables for further processing transactions.

4. The RFID system shall have an anti-collision feature, enabling it to read multiple FASTags simultaneously without errors or conflicts.
5. The RFID Reader shall authenticate and process the information from FASTags efficiently and securely.
6. Each RFID Reader shall support a minimum of 4 radio channels to connect up to 4 antennas. No more than 4 antennas shall be connected to a single RFID Reader. Channel switching must occur within 6 milliseconds or faster to maintain operational efficiency.
7. To ensure accuracy, one or multiple RFID Readers may be deployed to manage a single lane effectively.
8. RFID channel switching customization shall be controlled at the Control Center level via the Vehicle Monitoring, Enforcement and Collection System(VMECS) application.
9. Deleted
10. All tags detected under the canopy must be stored in the reader's internal memory before being transmitted over the network.
11. RFID Reader housing shall be rugged, tamper-proof, and designed to operate under adverse weather conditions.
12. The reader must support robust data security measures, including anti-copying and anti-forgery functionalities.
13. It must withstand harsh climatic conditions while ensuring stable and consistent 24x7 operation.

2.2 RFID Antenna

RFID Antenna refers to the conductive element that sends and receives FASTag data. The minimum height clearance for the RFID antenna should be based on Indian regulations regarding road construction. The RFID antenna should be designed for high-speed vehicle detection system .

2.3 ANPR and Application

The Automatic Number Plate Recognition (ANPR) camera system is designed to automatically read vehicle license plates using optical character recognition technology. This versatile system is used for surveillance in various applications.

- i. Integration: ANPR technology should be embedded within security cameras (also known as ANPR Cameras) to ensure accurate readings regardless of the shape and color of the license plates.
- ii. Lighting Conditions: The ANPR cameras must be capable of reading license plates under varied lighting conditions, including day, night, and adverse weather conditions.
- iii. High-resolution ANPR Camera for multi-lane coverage (3MP or better, CMOS), Global shutter.
- iv. High frame rate (50/60 fps) for traffic bursts and image sequence of speeding vehicles

#	System Parameter
General	
1.	ANPR system automatically captures the license plates of any vehicle(s) in the field of view (FOV) of a camera and stores them in database, so that details of the vehicles are available at any later point in time along with related video footage. It's OCR engine then converts captured license plate number into editable text, for ease of validation of vehicle details. OCR engines need to be designed and customized as per the multiple number plate and various Indian scripts apart from standard HSRP number plates
2.	If there is more than one vehicle in the camera FOV, then all of them are independently processed and their license plates are recognized irrespective of the type of vehicle like car, bus, truck, auto rickshaw, motorcycle, etc.
3.	Non-standard number plates shall be subject to audit and manual validation. The ANPR solution is expected to leverage AI/ML capabilities to adapt and improve recognition accuracy over time, thereby enhancing future readings and minimizing manual intervention.
4.	The vehicle image produced by the system should be wide enough to give the exact position of the vehicles with respect to the virtually marked point.
5.	The system is capable to process and read number plate of vehicles with speed Upto 150km/hr. or higher.

#	System Parameter
6.	The system can capture vehicle color and label them as per predefined list of configured system colors. System allows option to search combination if vehicle color with vehicle registration number plate.
7.	The Evidence and ANPR camera should continuously record all footage in its field of view to be stored at the local base station. This should be extractable onto a portable device as and when required. The network should have the capability to provide the real time feed of the evidence camera to the CC at the best resolution possible on the available network.
8.	The system shall be equipped with IR Illuminator in-built as well as external to ensure clear images including illumination of the Number Plate under low light conditions and nighttime.
9.	The system support reading accuracy Upto 99.5% of standard number plate vehicles number plates which are visible by human eyes.
11.	The system support API for integration with 3rd parties' application.
12.	Recording & display information archive medium
12 (a)	<p>The recording and display of information should be detailed on the snapshot of the infracting vehicle as follows:</p> <ul style="list-style-type: none"> a) Computer generated unique ID. b) Date (DD/MM/YYYY) c) Time (HH:MM: SS) d) Equipment ID e) Location ID f) Lane Number of the vehicle g) Time Stamp of RFID Reader at the time VRN captured by ANPR h) Registration Number of vehicle

#	System Parameter
13	<p>The ANPR application should be a tightly coupled system with the VMECS software deployed on the servers. The ANPR application should only be accessible through the VMECS Software.</p> <ul style="list-style-type: none"> a) The system should have secure access mechanism for validation of authorized personnel. b) Deletion or addition and transfer of data should only be permitted to authorized users. c) The system should have the capability to transfer the data to CC (Control Centre) through proper encryption in real time and batch mode for verification of the processing of E-Notice as defined in the e-Notice module. d) If connectivity to server is not established due to network/connectivity failures, then all data shall be stored on site on the Edge system / LPU and will be transferred once the connectivity is re-established automatically. There shall also be a facility of physical transfer of data on portable device whenever required. There should be a provision to store minimum one week of data at each site on a 24x7 basis.
14	Mounting structure
a.	<ul style="list-style-type: none"> a) It will be Mounted on the Canopy/Gantry. b) The ANPR camera shall be placed in such a way that it should be able to view the edge shoulders as well as the service lanes to capture the vehicle license plates and process the same for deduction of applicable charges from eligible vehicles as notified by government.

2.4 IR Illuminator

The illuminator should be equipped with ANPR Camera will be able to provide complete coverage for image capture. Under Vehicle Monitoring, Enforcement and Collection System(VMECS), the IR Illuminator should also be able to handle different driving behavior in Vehicle Monitoring, Enforcement and Collection System(VMECS) environment including lane switching, high speed, tailgating, low speed, etc. The light given off by the illuminator should be set to minimize potential distraction to motorists.

- a) High power, compact and lightweight
- b) Up to 75 Hz for traffic bursts and image sequences
- c) Infrared (invisible)
- d) Rugged IP66 enclosure
- e) Long life, low total cost of ownership

2.5 Audit Surveillance Camera

- a) Audit Surveillance Cameras shall be installed on each VMECS gantry. The cameras shall be mounted at an appropriate height to ensure full coverage of all lanes, including the shoulder lane, on their respective sides. The setup must enable clear capture of every vehicle passing through the gantry.
- b) Adequate illumination, such as IR flashers, shall be installed to enhance the accuracy of the camera during nighttime operations. The camera's image quality must be clear enough to count and vehicles with color based, color code and their types passing under the gantry/canopy. It shall also capture video with clear number plates within a range of 30 meters.
- c) The Audit Surveillance Camera shall be positioned to ensure visibility of the edge shoulders as well as service lanes. This configuration must enable the capture of vehicle details for further processing by the Vehicle Monitoring, Enforcement and Collection System(VMECS) server to meet functional requirements.
- d) If connectivity to server is not established due to network/connectivity failures, then all data shall be stored on site on the Edge system / LPU and will be transferred once the connectivity is re-established automatically. There shall also be a facility of physical transfer of data on portable device whenever required. There should be a provision to store minimum one week of data at each site on a 24x7 basis.
- e) The proposed solution must be highly customizable to accommodate IHMCL's specific requirements and evolving needs.

2.6 Detector- RADAR

- a) The bidder shall propose appropriate technical solution/ product to check speed, count the number of vehicles and classification of the passing vehicle at each lane. The output of the detectors should be to indicate the presence/ passage of vehicles and shall be used to trigger the VMECS system to generate counts, and speed at each lane.
- b) The detection device shall operate reliably under various weather conditions, including sunshine, heavy rain, and fog. The Bidder shall clearly specify the Placement of the detector (**Count, Speed**) **for each lane.**
- c) The detector shall accurately count vehicles in non-lane-based.
- d) The detection device shall have a compact housing with an enclosure rating of IP67, along with integrated heating to enable consistent operation in outdoor environments.

2.7 Firewall

The firewall must provide unparalleled visibility into risky users, unknown or unwanted applications, advanced threats, suspicious payloads, and encrypted traffic. It shall ensure robust protection of the network from ransomware, advanced threats, phishing emails, and other cybersecurity risks, with the following minimum functionalities:

- i. Firewall Block Access to Unapproved Websites, address, URLs
- ii. Protect the Network, Data, and machine from Malicious Code

- iii. Firewalls shall have Control of Internet content connected to the gantry equipment.
- iv. Shall have Limits set options on Bandwidth Usage
- v. Shall Secure Network when using remote sessions or Remote Monitoring from Anywhere
- vi. Shall Work 24/7, Monitoring the Network and Protecting It from Harmful codes, sites, malware, ransomware attacks.
- vii. The firewall must be capable of managing multiple firewalls from different vendors, both virtual and physical, providing seamless integration and centralized management.

2.8 Communication and Time Synchronization

The Communication and Time Synchronization of VMECS system shall be as per below requirements:

- 1) **Communication Interface:** The Equipment shall support Ethernet interface to communicate with the Vehicle Monitoring, Enforcement and Collection System(VMECS) server.
- 2) **Power Saving:** Appropriate energy saving mechanisms and approaches.
- 3) **Real Time Clock:** The system should maintain a real-time clock of the system and sync with all the field equipment. The real time clock shall be based on Network Time Protocol (NTP) or Simple Network Time Protocol (SNTP). This shall maintain the transaction time and become an integral part of the system.

2.9 VMECS Application Software

- 1) The VMECS application shall be designed and deployed in a multi-tier architecture comprising two primary levels, namely the Gantry Level System and the Central Command and Control Centre System. All VMECS equipment installed at each gantry shall be integrated with the Local Control Centre, and the VMECS software shall be deployed at both the Local Control Centre and the Central Command and Control Centre to ensure seamless data processing, monitoring, and enforcement operations.
- 2) The Vehicle Monitoring, Enforcement and Collection System (VMECS) Application Software shall function as the core platform responsible for detection of vehicles passing through the gantries and subsequent validation of such vehicles through Government databases integrated via the National Informatics Centre to determine whether the vehicle is eligible for deduction of charges as notified by the Government. The system shall also be responsible for processing payments and collection of notified charges from eligible vehicles, as well as enforcement of speed violations based on ANPR and radar inputs.
- 3) The system shall detect vehicles in real time using RFID, ANPR cameras & others equipment, and transmit captured vehicle registration details through API-based integration with the National Informatics Centre for validation and retrieval of vehicle attributes required for enforcement and payment decisions. The application shall automatically identify vehicle class, fuel type, gross vehicle weight, fitness validity, insurance status, and emission compliance, determine direction of travel and gantry crossing confirmation, distinguish vehicle categories without manual intervention, flag vehicles with missing FASTag, tampered number plates, or unreadable registration numbers, and generate exception reports for enforcement authorities. Only those vehicles that are successfully validated through the National Informatics Centre shall be considered for further payment processing, subject to their detection as eligible vehicles under the notified Government rules.
- 4) The VMECS application shall compute applicable user charges based on validated vehicle attributes and notified Government rules, with all fare logic and rule engines applied centrally to determine the eligibility of vehicles for charge deduction. The system shall transmit transaction data for payment processing through the National Electronic Toll Collection ecosystem operated by the National Payments Corporation of India, while managing settled, unsettled, and exception transactions in a structured manner. It shall further ensure continuous synchronization of all payment-related data with the central server. All charge computation, reconciliation, and reporting functions shall be executed exclusively at the central system to maintain auditability, transparency, and financial integrity.
- 5) The VMECS application shall process speed measurements captured through radar and ANPR-based vehicle identification systems and shall correlate the recorded speed data with the validated vehicle identity to establish enforcement accuracy. The system shall generate violation records along with evidentiary images and video clips, and route such cases to authorized validators at the Control Centre for review. Upon approval, the application shall enable automated generation of enforcement notices. No speed violation shall be treated as final or enforceable unless it has been processed through the centralized VMECS system.
- 6) The Vehicle Monitoring, Enforcement and Collection System (VMECS) application will track vehicle flow in real-time to calculate vehicle counts and classifications using various sensors, such as RFID readers, ANPR cameras, and vehicle detectors. the Vehicle Monitoring, Enforcement and

Collection System(VMECS) application will also ensure real-time data processing and the correct assignment of charges collection based on vehicle type, lane used, and other relevant parameters. the application software will support automated generation of e-notices of vehicles crossing the gantry/lanes area under violation category.

- 7) Vehicle Monitoring, Enforcement and Collection System(VMECS) application shall take the decision of sending the file for transaction, based on the confidence of the RFID and ANPR camera read accuracy.
- 8) The transactions recorded at the gantry are initially stored in the gantry VMECS application. this data is then transmitted to the core VMECS application, hosted at the control center or a central server, for processing based on the transaction status. this ensures that all transaction records received from the gantry are centralized and processed by the core system.
- 9) The Vehicle Monitoring, Enforcement and Collection System (VMECS) core application manages the entire interface of the VMECS and receives both transaction data and heartbeat signals from the gantry equipment via the gantry application.
- 10) The Bidder shall establish a secure, tamper-proof device registry for all deployed hardware and software, ensuring checksum validation, and logs for all configurations, updates, and modifications.
- 11) The Bidder shall set up a Role-Based Access Control system to manage who access field devices, application systems, ensuring all access is logged.
- 12) The Bidder shall ensure all field devices send telemetry data regularly - in a standard format with details like device ID, time, CPU and memory use, firmware version, etc.
- 13) The Bidder shall upgrade all subsystems (devices, applications) - preferably remotely through a secure process without any system downtime.
- 14) The Bidder shall build or present a roadmap for application systems using container-based microservices and open-standard CI/CD deployments.
- 15) The Bidder shall design and maintain a multi-location database with automatic failover and replication, implement API retry for NIC, VAHAN, and NPCI integrations, ensure continuous heartbeat monitoring, and share quarterly failover reports with IHMCL.
- 16) The Bidder shall ensure full cybersecurity compliance, including endpoint protection, TLS encryption, and annual VAPT by a CERT-In-approved agency.
- 17) To ensure long-term interoperability across deployments, the Bidder shall ensure all system APIs follow open standards, remain vendor-neutral, and integrate seamlessly with third-party platforms.

2.10 Web-Portal:

The Bidder shall design, develop, deploy, and maintain a secure, centralized, and user-friendly web-portal for monitoring, enforcement, analytics, and reporting of the Vehicle Monitoring, Enforcement and Collection System (VMECS). The portal shall be accessible to authorized users of **IHMCL**, **NHAI**, and other designated agencies through a secure web-based login with role-based access control. The portal shall support real-time visualization, historical analytics, configurable dashboards, automated alerts, and downloadable MIS reports to support the three core VMECS functions — detection & validation, payment processing, and enforcement.

The web-portal shall include, but not be limited to, the following modules and features:

1) Central Dashboard and Monitoring

The portal shall provide a configurable real-time dashboard displaying:

- a. Health status of all gantries, sensors, cameras, radar, and field devices
- b. Network connectivity and data synchronization status between gantries and control centre
- c. Real-time traffic flow and classified vehicle counts
- d. Real-time count of validated vehicles, chargeable vehicles, and enforcement cases
- e. Status of generated e-Notices (pending, validated, approved, rejected, paid)
- f. Alerts for device failure, communication loss, abnormal traffic patterns, or system anomalies

2) Validation & Transaction Monitoring Module

The portal shall provide visibility into vehicle detection and validation workflows, including:

- a. Status of vehicle validation requests processed through National Informatics Centre systems (VAHAN/SARATHI)
- b. Classification of vehicles as eligible, non-eligible, or exception cases
- c. Tracking of vehicles without FASTag, unreadable plates, or incomplete data
- d. Monitoring of transaction lifecycle (captured, validated, charge computed, transmitted, settled)

3) E-Notice

- a. e-Notice Module functionality within the web portal.
- b. Role-based access management to ensure only authorized personnel can access the e-Notice Module.
- c. Features to validate the generated e-Notices as below:
 - i. **Accepted:** Automatic integration with NIC e-Notice and NETC systems for processing.
 - ii. **Rejected:** Mandatory comments required for rejection reasons (e.g., VRN not visible etc.).
 - iii. **Exempted:** Mandatory comments for exemption (e.g., testing vehicle, convoy).
- d. Status monitoring for issued e-Notices (Accepted, Rejected, Exempted) on the main dashboard.
- e. Tracking and reporting of repetitive exempted or rejected cases over various time periods (daily, weekly, monthly).

4) Payment, Reconciliation and Settlement Module

The portal shall support monitoring of payment processing through the NETC ecosystem operated by NPCI, including:

- a. Eligible vehicle transactions processed for charge deduction

- b. Successful, failed, pending, and disputed transactions
- c. Settlement and reconciliation summaries
- d. Exception handling and adjustment tracking
- e. Downloadable financial and audit reports

5) Reports and Analytics Module

The portal shall allow generation of customizable reports by date, gantry, vehicle class, or transaction type, including:

- a. Device uptime and SLA compliance reports
- b. Traffic volume and vehicle classification reports
- c. Validated vs chargeable vehicle statistics
- d. Revenue, settlement, and reconciliation reports
- e. Enforcement statistics and repeat violation analysis
- f. Audit trail logs of all system and user activities

6) Security, Audit and System Health Monitoring

The portal shall:

- a. Maintain complete audit logs of user access, approvals, and configuration changes
- b. Provide cybersecurity monitoring dashboards including login anomalies and system alerts
- c. Display system health indicators, telemetry summaries, and failover status
- d. Support encrypted access, secure session management, and periodic security reporting

7) SLA and Performance Monitoring

The portal shall include a centralized SLA monitoring dashboard displaying:

- a. Device uptime and response times
- b. Transaction processing latency
- c. Validation turnaround times
- d. Network performance indicators
- e. Overall system availability and service compliance

2.11 Indicative Minimum Bill of Quantity (BOQ):

1. Vehicle Monitoring, Enforcement And Collection System(VMECS) through Gantry for each fee plaza:

BOQ				
Development Phase				
S. No.	Description of work	Unit	Qty	Remarks
Vehicle Monitoring, Enforcement and Collection System(VMECS) Through Gantry				
A	Minimum Field Equipment			
1.	RFID Antenna	Nos	1	Per lane
2.	RFID Reader	Nos	1	Per lane
3.	Detector -Radar	Nos	1	Per lane
4.	ANPR Camera (Including Housing and Mounting)	Nos	2	Per lane (Back & Front)
5.	Audit Surveillance Camera including night vision and Mounting	Nos	1	Per Gantry
6.	IR Illuminator	Nos	1	Per lane or as per solution
7.	Field Junction Box with Surge Protector Device	Nos	1	Per lane
8.	Edge Level switch (8 Port or as per requirement)	Nos	1	Per lane
9.	Switch (Layer 3) – 24 Port (HA Mode)	Nos	1	Per Direction
10.	LPU with all network equipment	Nos	1	Per lane or as per solution
11.	Gantry	Nos	1	Per Location
12.	Any additional Component	Lumpsum		
B	Minimum-Local Control Centre (Field Equipment)			
1.	Local Server (HA Mode)	Nos	2	Per Gantry
2.	Server Rack (27U)	Nos	1	Per Gantry
3.	Workstation with Display 27"	Nos	1	Per Gantry
4.	Porta Cabin	Nos	1	Per Gantry
5.	Data Storage Including peripheral, transaction, video storage, NVR ETC	Nos	1	Per Gantry or as per solution
6.	Porta Cabin Camera Monitoring System	Nos	4	Per Gantry or as per requirement to ensure

BOQ				
Development Phase				
S. No.	Description of work	Unit	Qty	Remarks
				moniroing of complete VMECS system at a gantry
7.	Air Conditioner as per requirement for maintaining temperature for Portal cabin VMECS	Nos	1	Per Porta Cabin or as per requirement
8.	Switch (Layer 3) – 24 Port (HA Mode)	Nos	1	Per Gantry
9.	10 KVA Online UPS	Nos	1	Per Gantry
10.	DG-30 KVA			Per Gantry
11.	Redundant Internet Connectivity (100 Mbps)	Nos	2	MPLS/Leased Line, Per Gantry
12.	Firewall with all licenses	Nos	1	Per Gantry
13.	Junction Box with Surge Protector Device	Nos	1	Per Gantry
14.	Armoured OFC , Electrical Cable , Cat-6 A cable with adequate Cable tray, Earthing, Lightning Protection, Network Surge Protection	Lumpsum	-	
15.	Any additional Component	Lumpsum		
C	Minimum Central Command Control Centre Equipment			
1.	Central Server/Cloud Server (HA Mode)	Nos	1	Per Central CC
2.	Server Rack (42U) if physical server	Nos	1	Per Central CC
3.	Workstation with Display 27"	Nos	8	Per Central CC
4.	Video Wall for Cameras	Nos	4	Per Central CC or as per solution
5.	Network Colour Printer	Nos	1	Per Central CC
6.	Servers/Cloud and Data Storage including peripherals (NVR / CAMERA SERVER with NAS/RAID Backup device) all complete as per the Standards & Specifications	Nos	1	
7.	Redundant Internet Connectivity (1 Gbps)	Nos	2	MPLS/Leased Line
8.	Firewall with all licenses	Nos	1	

BOQ				
Development Phase				
S. No.	Description of work	Unit	Qty	Remarks
9.	Junction Box with Surge Protector Device	Nos	1	
10.	Armoured OFC , Electrical Cable , Cat-6 A cable with adequate Cable tray, Earthing, Lightning Protection, Network Surge Protection	Lumpsum		
11.	Any additional Component	Lumpsum		
C	VMECS Software (Field & Control Centre)			
1.	VMECS portal and Dashboard and two license	-	Complete in respect	Perpetual Licenses /Open source
2.	ANPR Application Per Channel	-	01 per ANPR Camera	Perpetual Licenses /Open source
3.	Video Management Software Base License	-	1	Perpetual Licenses /Open source
4.	Video Management Software Per Channel license	-	01 per Camera	Perpetual Licenses /Open source
5.	Detector -Radar applications	-	1	Perpetual Licenses /Open source
6.	RFID Reader and Antenna Application	-	1	Perpetual Licenses /Open source
7.	Video Analytics (Camera/ Application)	-	01 per Camera	Perpetual Licenses /Open source
8.	Enterprise Management Software (EMS)	-	Lumpsum	1 (Master License + Nodes=60)
9.	Integration with VAHAN	-	Lumpsum	
10.	Operating System	-	Lumpsum	Licensed version
11.	Any additional	-	Lumpsum	

BOQ				
Development Phase				
S. No.	Description of work	Unit	Qty	Remarks
			um	

2.12 Minimum Manpower Requirements & Qualifications:

- a) Manpower Requirement: The Bank shall deploy personnel as specified below. The actual number of personnel shall be determined based on project requirements, ensuring that the minimum numbers indicated below are maintained.

S. no.	Manpower Details	Minimum Number of Resources	Location	Remarks
1.	Project Manager	1	Common Control Centre	
2.	CC Transaction Validator/Auditor at CC	7 in each Shift + Reliever	Common Control Centre	-
3.	System Maintenance Engineer	3 in each shift + Reliever	Site Location at each Gantry	
4.	Security Guard (It is the responsibility of the Bidder/Bank to ensure safety and security of the command control center and associated premise/infrastructure/s pace allocated for the purpose of the project. Bidder/Bank should ensure appropriate deployment of manpower/resources to ensure the same)	3 in each shift + Reliever	Site Location at each Gantry	
5.	System Maintenance Engineer	3 in each shift + Reliever	Common Control Centre	

b) Manpower Requirement & Qualification

#	Manpower Designation	Minimum Qualifications
1.	Project Manager (Dedicated On-site)	Minimum Education: B.E/B.Tech/MCA along with MBA is required.
		Total experience: 12 years and above.
		Languages known (Read, Write and Speak): Hindi and English
		Prior project management experience of at least 10 years of handling ETC based Toll Plaza projects.
		Excellent writing, communication, time management and multi-tasking skills
		Project Experience of managing components
2.	System Maintenance Engineer	B. E/ B. Tech/ MCA/ MTech with minimum five years of experience in Systems/Software Quality Assurance
		2 Engineer for each shift (8Hrs) and 2 relievers
3.	CC Auditor/ Transaction Validator	Graduate in any discipline with at least 2 years of relevant experience in citizen contact service.
		Minimum 4 auditors/Validator per shift(8hrs) per Vehicle Monitoring, Enforcement And Collection System(VMECS) plaza and 2 relievers. Number of auditors may be dependent on the volume of traffic which is to be decided by the bidder.
4.	Security Guard (It is the responsibility of the Bidder/Bank to ensure safety and security of the command control center and associated premise/infrastructure/space allocated for the purpose of the project. Bidder/Bank should ensure appropriate deployment of manpower/resources to ensure the same.)	Minimum Metric in any discipline with at least 2 years of relevant experience. Ex service in Central Government/ Defence/ Retired army man are preferable.
		Minimum 4 guard per shift (8hrs) and 2 relievers.

Please note:

The provided BoQ is indicative and the Successful Bidder shall be solely responsible for proposing a solution that meets all the features, functions, and performance criteria outlined in this RFP. The Successful Bidder will be responsible for the complete design, development, and implementation of the required Vehicle Monitoring, Enforcement And Collection System(VMECS) solution, along.