Dated: 10.11.2025

RFP for Selection of Acquirer Bank for FASTag-ANPR based Multi Lane Free Flow (MLFF) User Fee Collection at Boriach Fee Plaza on Surat - Dahisar section of NH-48 on Fixed Transaction Fee Model

E-tender Id: 2025_NHAI_251363_1

RFP Reference No.: IHMCL/MLFF- Boriach/2025 published on dated 06.10.2025

The following Corrigendum-3 is hereby issued against RFP for Selection of Acquirer Bank for FASTag-ANPR based Multi Lane Free Flow (MLFF) User Fee Collection at Boriach Fee Plaza on Surat - Dahisar section of NH-48 on Fixed Transaction Fee Model:

SI. No.	RFP Section	Original Clause	Updated Clause (to be read as)
1	Clause 1.2.16.3 Parameters to be checked during Site Acceptance Testing (SAT) 3) ANPR	3) ANPR Camera Accuracy The ANPR camera system should read all types of vehicle registration number (VRN) plates with minimum accuracy of 99% under both day and night conditions, without any manual validation/audit. The bidder shall be solely responsible of deployment of any	3) ANPR Camera Accuracy The ANPR camera system should read all types of vehicle registration number (VRN) plates with minimum accuracy of 99% under both day and night conditions, without any manual validation/audit. The bidder shall be solely responsible of deployment of any
	Camera Accuracy	additional arrangement e.g. lighting etc. to achieve the desired accuracy. Note:	additional arrangement e.g. lighting etc. to achieve the desired accuracy. Note:
		The 99% 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. 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.	 The 99% 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. 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

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			(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 accuracy percentages shall be independently reported by the vendor and approved by IHMCL for every defined test condition.
			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.
			5. Total vehicle crossings shall be cross-verified across all detection sources — ANPR, RFID, LiDAR, 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.

SI. No. RFP Section	Original Clause			Updated Clause (to be read as)	
2 Clause 1.2.16.3, Parameters to be checked during Site Acceptance Testing (SAT), Sl. No. (6) of Table	The proposed ML should be able to accurate reconcil accurate reconcil validation of fina transactions and e-Notices Posterior accurate reconcil validation of fina transactions. Validation of transaction detail system Correct identifications or rejected pay, exempted accuracy and of cases of edgeneration for transactions, correct vehicle identifications. VRN & Tag ID timestamping calculation, image/evided archived approper defined rules. System capa generate reconcil should be able to accurate reconcil validation of fina transactions. Validation of fina transactions. Validation of fina transactions. Validation of fina transactions or rejected/pay, exempted accurate reconcil validation of fina transactions. Validation of fina transactions. Validation of fina transactions. Validation of fina transactions or rejected/pay, exempted accurate reconcil validation of fina transactions.	ensure ation and cial ation of of to the NPCI fication and of ETC unsuccessful ailure to d etc. reliability Notice non-FASTag including e based on penalty nd ce details. that e- enerated, acked, and opriately as usiness	6)	Payment reconciliation for successful FASTag transactions and e-Notices	The proposed MLFF system should be able to ensure accurate reconciliation and validation of financial transactions. Validation of successful posting of transaction details to the NPCI system • Correct identification and categorization of ETC transactions (unsuccessful or rejected/failure to pay, exempted 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

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		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 MLFF system, including the Transaction Engine and Reconciliation Engine, is sized to handle at least twice (2×) the current peak traffic observed at the plaza and in any individual lane. 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.	
3		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.	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, LiDAR, Radar and MLFF 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, LiDAR, RADAR.	

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			 System resiliency and recovery in event of network / server / system failure. 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.
4.	2.9 MLFF Application Software	New Clauses 2.9 Sl N (9), (10), (11), (12), (13), (14), (15), (16) & (17)	9. 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.
			10. The Bidder shall set up a Role-Based Access Control system to manage who access field devices, application systems, ensuring all access is logged.
			11. 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.
			12. The Bidder shall upgrade all subsystems (devices, applications) - preferably remotely through a secure process without any system downtime.
			13. The Bidder shall build or present a roadmap for application systems using container-based microservices and open-standard CI/CD deployments.
			14. The Bidder shall design and maintain a multi-location database

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			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.
			15. The Bidder shall provide a northbound interface for the National Command Centre (as and when it is established by IHMCL) to enable observability and analytics for detecting duplicate tag use, route deviations, and repeated violations.
			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.
5.	Schedule C, Clause 2.10, Web-Portal	New Clause (n)	(n) The Bidder shall provide a tool or dashboard to track and monitor SLA performance, uptime, response time, and overall system health in real time.
6.		Separate Command and Control Centre need to be set-up at the fee plaza provided in Schedule A	Bidders shall use the existing and proposed future facilities available at the toll plaza. Bidders can setup the control centre at remote location for support services like audit, validation etc. subject to approval of IHMCL. For any additional space requirement, the bidder may arrange porta cabin/container cabin of sufficient size at their own cost.
7.	1.2, Key Dates	 4. Last date/ time for online submission of bids (i.e., Bid due date) - 10/11/2025 Upto 05:00 PM IST 5. Opening of Technical bids - 11/11/2025 at 05:30 PM IST 	4. Last date/ time for online submission of bids (i.e., Bid due date) -24.11.2025 Upto 05:00 PM IST 5. Opening of Technical bids - 25.11.2025 at 05:30 PM IST