भारतीय राजमार्ग प्रबंधन कंपनी लिमिटेड
(एनएचएआई की एक पहल)

Indian Highways Management Company Limited
(An Initiative of NHAI)

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IHMCL/Duplicate-Transaction-Logic/2023/203661 /213   17.05.2023

To,

All Acquirer Banks

FASTag Programme

Sub: Updation in Duplicate Transaction Logic implementation in Acquiring system to avoid double deduction case– Reg.

Ref: -Letter no. IHMCL/ETC/Operations/2018/07, dated 07.01.2020

This is with reference to the letter mentioned above regarding the revised Duplicate Transaction Logic in Interface Control Document (ICD) that was implemented to prevent double deduction from a FASTag account. It was instructed that all Acquirer banks and System Integrators shall implement the revised logic in their systems. However, during a forensic audit carried out at NH fee plaza, it has been observed that Duplicate Transaction Logic is functional when ETC transactions are received in chronological sequence as per reader read time by the Acquirer Bank from toll plaza.

2.   To address the issue, it has been decided that all Acquirer Banks should make necessary changes in their system to implement the Duplicate Transaction Logic in a manner to validate ETC transactions based on the reader read time and not limiting it to the chronological sequence of the ETC transactions as received from toll plaza. To further elaborate: -

   a. Any FASTag transaction for same vehicle at same plaza, reported with reader read time of 15 minutes before or after the reader read time of any accepted or pending transaction for vehicle traveling in same direction should be rejected.
   b. Any FASTag transaction for same vehicle at same plaza, reported with reader read time of 10 minutes before or after the reader read time of any accepted or pending transaction for vehicle traveling in any direction should be rejected.

For e.g. As per below tables both transaction number ABCDXX2 or ABCDXX3 should be declined by the bank.

Scenario 1: Time difference should be 15 minutes if vehicle travels in same direction					
Transaction no.	Tag ID	Plaza ID	Reader Read Time	Acquirer bank txn received time	Transaction Stat
ABCDXX1	3416XXXXXXXXXXXXXX XX15A0	123456	10-05-2023 16:02	10-05-2023 16:04	Accepted/ Pending
ABCDXX2	3416XXXXXXXXXXXXXX XX15A0	123456	10-05-2023 16:17	10-05-2023 16:19	Declined
ABCDXX3	3416XXXXXXXXXXXXXX XX15A0	123456	10-05-2023 15:47	10-05-2023 16:20	Declined

Scenario 2: Time difference should be 10 minutes if vehicle travels in any direction					
Transaction no.	Tag ID	Plaza ID	Reader Read Time	Acquirer bank txn received time	Transaction Stat
ABCDXX1	3416XXXXXXXXXXXXXX XX15A0	123456	10-05-2023 16:02	10-05-2023 16:04	Accepted/ Pending
ABCDXX2	3416XXXXXXXXXXXXXX XX15A0	123456	10-05-2023 16:12	10-05-2023 16:15	Declined
ABCDXX3	3416XXXXXXXXXXXXXX XX15A0	123456	10-05-2023 15:52	10-05-2023 16:16	Declined

3.   It may be noted that the existing rule as defined in the above referred letter, dated 07.01.2020 shall remain unchanged.

4.   All Acquirer banks, Toll Plaza operators, System integrators shall ensure to make the necessary changes in their system within 15 days. Any instance of double deduction from FASTag resulting from the acquirer bank's failure to implement the above changes shall be liable for applicable penalty as per SLA document.

(Abhijeet Kumar)
Chief Operating Officer

Copy to:
  i.   CGM(CO), NHAI
  ii.   NPCI
  iii. All System Integrators-Under NETC Programme
  iv.   All Concessionaires (Through NHBF and HOAI)

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IHMCL/ETC/Operations/2018/ 07   07.01.2020

To,
All Acquiring Banks & System Integrators
NETC Program.

Sub: Revision in the duplicate Transaction logic in ICD 2.4(b) & Revised ICD 2.4(b)
        Document - Reg.

Dear All

        With reference to increasing the FASTag usage at the National Highways Toll Plazas,
the Ministry had mandated to declare all lanes of Fee Plazas on National Highways as
"FASTag lanes". There has been significant growth in the NETC system since last 3 months.
Several cases have been reported where toll fees are getting debited twice from customer's
FASTag account even if they are travelling for a single journey. It was observed that most of
the second unauthorized transactions are happening between 15 minutes and duplicate
transactions accord for highest overall ecosystem financial disputes.

2.   In order to address the issue of double deduction, the rule in **"Interface control
document (ICD) 2.4 (b)"** has been amended and the revised clause shall be read as below –

A. Duplicate Transactions Rules

*Clause (ii) - if any single tag has two successful transactions within time difference of less
than or equal to 15 minutes in the same direction at the same plaza for the same acquirer, then
the acquirer will decline the 2nd transaction. Once declined the 2nd transaction will become
unsuccessful hence this declined transaction will not be considered for duplicate transaction
validation.*

*Example Absolute Value of (Reader Read Time 1 - ReaderReadTime2) = Time Difference Time
Difference should be less than equal to 15 minutes*

Tag id	Acquirer Id	Plaza/Merchant Id	Lane ID	TollTransaction Id	Reader Read time	Acquirer Action
Tag1	123456	234567	L1	Txn1	10:00 am	Accepted
Tag1	123456	234567	L1	Txn2	10:15 am	Declined
Tag1	123456	234567	L1	Txn3	10:16 am	Accepted

*Clause (iii) - If any single tag has two successful transactions within time difference of less
than or equal to 10 minutes in any direction at the same plaza for the same acquirer, then the
acquirer will decline the 2nd transaction. Once declined the 2nd transaction will become
unsuccessful hence this declined transaction will not be considered for duplicate transaction
validation.*

*Example - Absolute Value of (Reader/Read Time 1 - ReaderReadTime2) = Time
Difference*

Time Difference should be less than equal to 10 minutes

Tag id	Acquirer Id	Plaza/Merchant Id	Lane ID	TollTransaction Id	Reader Read time	Acquirer Action
Tag1	123456	234567	L1	Txn1	10:00 am	Accepted
Tag1	123456	234567	L2	Txn2	10:10 am	Declined
Tag1	123456	234567	L3	Txn3	10:11 am	Accepted

3.   The parameters 15 minutes & 10 minutes should be configurable at the Acquirer host and, should be defined and mutually agreed between Acquirer Bank and Concessionaire on basis the actual plaza layout. However, the said values cannot be configured below +/-15 minutes for same direction and +/-10 minutes for any direction.

Note: *All such transaction (same direction/opposite direction) shall be declined by the Acquiring Bank with the reject code "Duplicate".*

4.   In addition, System Integrators at the respective toll plaza shall be responsible for monitoring the duplicate transactions and configure the system accordingly.

5.   Any exception to the above rules shall be dealt separately as per actual plaza layout and justification provided by respective Toll Plaza Operator/Concessionaire to National Highways Authority of India.

6.   The revised ICD 2.4(b) document is enclosed for further reference.

This amendment applies with immediate effect.

Your faithfully,

Encl: As Above

(Shailesh Yadav)
Chief Operating Officer

Copy to:

   a) *NHAI CO Division- For Further circulation to ROs/PIUs/Toll Operating Agencies*

   b) *NHBF- For circulation to Concessionaires/ toll plaza operatorsto make necessary changes in HETC system software through System Integrators.*

   c) *NPCI - To ensure changes in Bank acquiring system*