

The convenient, centralised and interoperable toll collection system.

National Electronic Toll Collection (NETC)



Contents

Background	3
Introduction to NETC - FASTag.....	4
Business uses.....	5
Business benefits.....	5
Participants in the NETC ecosystem.....	6
Roles and Responsibilities.....	8
Onboarding.....	8
De-boarding.....	9
Use cases.....	10
Acts.....	10

1. Background

Supporting India's route to smoother traffic management

National Highways are the lifeline of the Country. They are arteries of the economic, social and cultural health of the Country which are equally important in the times of war and peace for ensuring movement of passengers and goods across the Country. This underlines the need for large scale tolling of the highways. As the volume of traffic increases, the current method of manual toll collection, with or without using computer generated receipts, becomes inefficient, prone to leakage and difficult to sustain. The method of payment requires vehicles to stop at toll plazas and wait a relatively long time for their turn to come.

The National Electronic Toll Collection (NETC) program launched by NPCI in December 2016 as an interoperable solution for the purpose of digitising the cash collection at toll plazas. It runs on RFID technology and an RFID tag (NETC FASTag) is used for identifying the vehicle for the purpose of collecting toll fare. NETC FASTag is linked to an underlying payment instrument (Savings Bank account, Current account and Prepaid Instruments etc.) as per choice of the customer. The primary objective was to encourage Electronic Toll Collection (ETC) adoption and eliminate manual toll collections leading to operational efficiency, waiting time reduction, enhanced toll collections, reduced environmental impacts and other associated benefits.

The initial years, the focus was to enable all the National Highway toll plazas for NETC FASTag acceptance and gradually include the State & City toll plazas. In a move aimed to give a major boost to enhance digital payments and reduce bottlenecks at national highways, Ministry of Road Transport and Highways (MoRTH) had mandated the use of NETC FASTag for toll payments w.e.f 15th February 2021.



2. Introduction

NETC FASTag - the near real-time traffic enablement and fee collection service.

NETC FASTag offers the convenience of cashless payment along with benefits like - savings on fuel and time as the customer does not has to stop at the toll plaza

Ever since the roll out of Mandatory NETC FASTag across the National Highways, NETC FASTags have witnessed a roaring success across the country. The program has gained public acceptance with approx. 52 million NETC FASTag issued across India. As on today we are processing over 9.5 million daily transactions amounting to more than Rs.1.4 Billion on a daily basis. The success of the program has been attributed to the collaboration of various stakeholders including NHAI, IHMCL, NPCI, 36 Issuer banks, 11 Acquirer banks, Concessionaires/Toll Operators, System Integrators, Tag manufacturers, etc.

Key features of National Electronic Toll Collection (NETC) payment system:

1. To empower the customers to use NETC FASTag to pay the toll fare by linking the tag to any of the bank account (Saving/Current/prepaid account).
2. To facilitate electronic collection of toll, while the vehicle is in motion, which will reduce congestion around toll plaza.
3. To facilitate inter-operability across members that issues tags to customers and that acquire toll plaza in a safe and secured manner for toll transactions.



3. Business Uses

Business uses of the NETC solution.

NETC FASTag provides seamless user experience at the Tolls and selected Parking plazas .

Toll Plaza contactless fee collection

User can pay the toll fares at all plazas using NETC FASTag linked with an Issuer Bank, thus saving time and effort of waiting at toll plaza . Currently 1050+ toll plazas are live on NETC FASTag across the country on which the user can seamlessly travel through.

Parking Plazas contactless fee collection

Various Parking plazas in the country currently offer the NETC FASTag payment solution. Here the User can pay the parking fare through the same NETC FASTag and enjoy the seamless experience at selected major malls/airports etc. Currently Parking is live on major 50+ locations across India.

4. Business Benefits

What are the business benefits of NETC?

NETC FASTag's seamless interoperable solution currently benefits all the stakeholders in the entire ecosystem

For Banks

- Near real-time transaction processing at Parking Plaza
- Interoperability with FASTag issued by any member bank being accepted at all NETC enabled parking plazas acquired by any member bank
- Elimination of physical cash transactions and reconciliation

For FASTag users

- Cashless and contactless payment with instant notification
- Increases speed through toll gates and hence saves fuel and time
- Easy online FASTag recharge through multiple pay options - existing savings /current account/credit card or a prepaid account.

For the Government

- Digitalization of retail payments
- Reduce air pollution by reducing the congestion around toll and major parking plazas
- Reduce fuel consumption and thereby the massive fuel bill of India
- Reduce cash handling and enhance audit control by centralizing user accounts
- Prevents corruption and promotes transparent governance

For Toll/Parking operators

- Eliminates the issue of exact change and maintaining small cash denominations
- Switch from security risks of cash management to cashless digital payment model
- Enhanced traffic management with shorter queue times
- Quicker reconciliation of receipts on a daily basis
- Electronic automation of a repetitive manual process

5. Participants

Who all participate in the NETC ecosystem?

The enablement of this program has been due to the collaboration of various stakeholders including NHAI, IHMCL, NPCI, Issuer banks, Acquirer banks, Concessionaires/Toll Operators, System Integrators, etc.

Issuing/Acquiring Banks:

Banks that are authorised to acquire or issue NETC FASTag account and other specified RFID enabled products.

Payment Service Providers (PSPs):

All payment service providers in the NETC network that are authorised to enable NETC transactions such as recharge and status check.

Merchants - Toll/ Parking Plaza Operators

Plaza Operators provide infrastructure like NETC RFID Reader, Boom Barrier, Fare display, Automatic Vehicle Classification (AVC), Weight in Motion (WIM), Cameras

and Plaza Server for enabling NETC FASTag toll payments through the NETC payments system.

Fleet and Vehicle owning customers:

All fleet and vehicle owning customers who utilise toll and parking services as well a fuel payments enabled by NETC.

National Highway Authority of India (NHAI) /

Indian Highways Management Company Limited (IHMCL)

NHAI / IHMCL are the program managers for NETC payment system who administer the infrastructure, set rules, fees and conduct audits of the Plazas acquired and on-boarded by them.

NPCI

NPCI acts as the centralized clearing and settlement body to settle the transactions and fee amounts among participating members in the NETC ecosystem.

System Integrators

System integrators provide technology integration solutions for participating merchants in the NETC ecosystem. In case of merchants other than Plazas, such as fuel outlets, the system integrators are responsible for fare calculation and logic rules for fee applicability.



Roles and responsibilities of NETC participants

NPCI

- Specify the procedural guidelines for the scheme management and to ensure compliance with them
- Certify members, NETC FASTag personalisation bureau and vendors
- Perform transaction switching between acquirers and Issuer
- Perform clearing and settlement for transactions on this network
- Provide a central repository for registering the NETC FASTags called NETC Mapper
- Provide consolidated MIS reports to members and IHMCL/NHAI.

Acquirers

Acquirers are responsible for integrating their systems with Plaza operators for the purpose of acquirer transactions processed on the NETC lanes. Acquirer are also responsible for integrating their system with NPCI's NETC system to facilitate toll fare calculation.

Issuer

Responsibility of the issuer is to manage issuance processes, transactions, cryptographic keys, distribution infrastructure, validate vehicle information, provide recharge opportunities through available channels like mobile, perform fraud monitoring and provide customer support services.

On-boarding

NETC Membership is open to all banks. Participating banks need to submit the 'Letter of Authority' which authorizes NPCI to use their settlement account with RBI for the purpose of settlement of NETC transactions.

New members wanting to be acquirers or issuers in the NETC ecosystem should get the approval of IHMCL. All acquirers/issuers need to adhere to all the guidelines, rules, and regulations, as stated in the Payment and Settlement Act, 2007 of Government of India and Reserve Bank of India.

For onboarding of customers, the participating FASTag issuing bank or entity enables first-time activation with a basic fee and minimum cash loading. The FASTag is then activated and can be topped-up/recharged online through the account a customer may have, including a savings/current account, online wallet, or credit/debit cards.

De-boarding

NPCI will inform the member, in writing, regarding termination/suspension of its membership from the NETC System.

If NPCI is of the opinion that the non-compliance/violation is not curable, NPCI may suspend/terminate the NETC System with immediate effect. However, the member will be given an opportunity of a hearing within thirty days at which they will receive a final order confirming or revoking the termination/suspension passed earlier.

NPCI may, at any time, if it is satisfied, either of its own volition or on the representation of the member, decide that the order of suspension/termination of membership is revoked.

If the non-compliance/violation is capable of remedy but cannot be reasonably cured within thirty days, the termination/suspension will not be effective if the member in default commences cure of the breach within thirty days and thereafter, diligently pursues such a cure to its completion within sixty days of the notice of violation. If the termination of membership order is revoked, the entity can apply afresh for membership, in accordance with NETC procedural guidelines. However, no automatic restoration of membership to NETC is granted by NPCI.

For FASTag de-boarding at the customer end, the deboarding could be for several reasons:

- the vehicle is sold and the affixed FASTag sticker falls out of usage
- the vehicle becomes part of the exclusion / black / hot list of NETC FASTag IDs which will not be accepted at Plaza. Law enforcement agencies, GOI and RBI can request issuers or acquirers to add/remove the NETC FASTag ID from the blacklist.
- the vehicle is on the Exempted Vehicle Class List

6. Use Cases

How are NETC services used?

FASTag transaction

Neelesh has just bought a brand new car and wants explore his city and also use it for daily commute. He has purchased a NETC FASTag through an Issuing Bank linked through Prepaid/Savings/Current account which has been affixed on his windscreen of the car. Neelesh uses this NETC FASTag to seamlessly travel through the toll plazas on the way. He also visits various places in the city like Malls, Airports etc and also enjoys the full benefits of the same NETC FASTag along the way.

7. Acts

Payment and Settlement Systems Act, 2007

Section 25 of the Companies Act 1956

Section 8 of the Companies Act 2013