Making cheques electronic for smarter, faster and more secure transactions

Cheque Truncation System
1. Background

The origins of electronic cheque transfer

In 2021-22, more than a 0.67 billion cheques were processed across India. The traditional form of the cheque clearing system required cheques to be physically moved from place to place. The time and effort involved in processing such physical cheques at various stages across the country made cheque clearing cycles longer and cumbersome. This was also due to the fact that the old Negotiable Instruments Act, 1881, required cheques to be presented at the branch where they were payable.

In the year 2002, the law was finally amended to allow for an electronic image of the cheque or other clearing instruments, to be used instead of the physical instrument. The legal framework was put in place for the introduction of cheque truncation and e-cheques in India. In 2003, the Grid-based Cheque Truncation System began in Mumbai, Chennai and Delhi.
2. Introduction

What is a Cheque Truncation System?
The Cheque Truncation System (CTS) involves halting the physical movement of the cheque and its replacement by an image/s of the instrument and the corresponding data contained in the MICR line.

CTS processing is divided into three grids in India - Northern grid with 9 states, Western grid with 5 states and Southern grid with 8 states.

How does the CTS system work?
Banks have scanners and capture systems at their branches in different cities that are part of the Grid. The cheques processed at the respective cities are consolidated at the bank level and sent onward to the next step in the clearance process. Usually, there is a single settlement for each bank in the GRID with different clearing sessions as shown in the table below.

<table>
<thead>
<tr>
<th>Session Type</th>
<th>Weekdays (2nd &amp; 4th Saturday holiday)</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>Monday – Saturday</td>
<td>15:30 hours to 19:30 hours</td>
</tr>
<tr>
<td>Return</td>
<td>Monday – Saturday</td>
<td>12:00 hours to 14:30 hours</td>
</tr>
</tbody>
</table>

To facilitate accounting of all Government collections, at the financial year end, RBI provides directions for processing Government collections through special clearing sessions.
An overview of the Clearing Process

1) Preliminary Verification
At this point the presenting bank verifies account, physical feel of the cheque, the apparent tenor of the instrument, no discoloration or tampering or alteration visible to the naked eye, examination under UV lamp, threshold limits, etc.

2) Sorting
Only cheques which meet the requirement of the CTS system are sorted and proceed for processing.

3) Crossing
All cheques received for collection over the bank’s counters, Cheque deposit machines and cheque drop boxes are required to be branded with the bank’s special crossing stamp /endorsement prior to scanning. The bank takes care that the crossing endorsement does not interfere with any material portion of the cheque, and the drawee banks are able to process their inwards without any undue problems.

4) Image capture
At this point the images of all the instruments in a batch / file must be duly captured along with MICR data using scanners set up for the purpose. The amount needs to be captured / keyed in to complete the data record. Ideal number of instruments in one capture file should be a maximum of 250.

Three image specifications as published by the RBI

<table>
<thead>
<tr>
<th>Image Type</th>
<th>Minimum DPI</th>
<th>Format</th>
<th>Compression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Gray Scale</td>
<td>100</td>
<td>JFIF</td>
<td>JPEG</td>
</tr>
<tr>
<td>Front Black &amp; White</td>
<td>200</td>
<td>TIFF</td>
<td>CCITT G4</td>
</tr>
<tr>
<td>Reverse Black &amp; White</td>
<td>200</td>
<td>TIFF</td>
<td>CCITT G4</td>
</tr>
</tbody>
</table>
5) Endorsement
At the time of scanning the cheque/instrument, the reader sorter / scanner will print a single line endorsement on the back of each instrument which shall be the unique identifier for the instrument.
The printing of the endorsement implies that the collecting bank undertakes to credit the payee’s account on realisation of the cheque and that the instrument deposited is a genuine one and is being collected for a bonafide customer of the bank.

6) Validation of the Cheque
Data captured by the banks’ capture system will be validated to avoid rejection. The capture system can automatically detect special cases like Government cheques.

7) Transaction completion
The banks will pass debit / credit on the Value Date of the transaction (the date on which the settlement is posted in the settlement bank’s account).

8) Storage and Archiving System
To ensure proper management of disputes, complaints, reconciliation, etc. banks are required to maintain a secure storage and archiving system of cheque images. The present statutory period for preservation of physical paid Cheques is 10 (Ten) years as mandated by Reserve Bank of India. Additionally, banks can utilise the National Archival Services (NAS) where images and reports can be downloaded instantly by the member banks for a historic period of 10 years. Through NAS API service, banks can extend archival service to their branches for online retrieval of cheque images.

9) PPS – Positive Pay system
PPS is a facility provided to bank to avoid frauds. A customer who is issuing a cheque should provide the payee name and amount of the cheque to the bank. The bank in turn submits this information to NPCI. Whenever the said
cheque is presented for clearing, the cheque details will be matched with the PPS details and a PPS report will be sent to the drawee bank with the required flags.

3. Business Uses

Business uses of the Cheque Truncation System.

Grid Clearing:
This system allows banks to present/receive cheques from/to multiple cities in a Single Clearing House through a service branch at one city for a grid.

4. Business Benefits

What are the business benefits of Cheque Truncation System?

For banks
- Quicker clearance and security of cheque transactions
- MICR amount encoding not required
- MICR and Image data travel together
- Reconciliation difference eliminated
- Cost involved in paper movement eliminated
- Grid implementation allowing better liquidity management for banks
- No cheques being lost, damaged, tampered with or pilfered
- No risk of any manipulation of data and image during transit
- Additional information available for cross verification before payments
- Can be made available for both corporate and retail customers
- Presenting banks can choose the point of truncation and model best suited to them based on considerations of security, efficiency, scale and nature of operations, technology readiness, geography etc.
Presenting banks can choose between centralised, distributed and hybrid. Images and MICR data alone are exchanged between the banks and the CPC.

For customers
- Extended cut off time for cheque acceptance by banks
- Easy retrieval of information
- Reduced timelines for clearing
- Quicker and safer cheque transactions
- Less chance of fraud
- Elimination of damaged or misplaced cheques
- Improved reconciliation services for corporate customers and government departments
- Reduction in Geographical dependence
- Reduced operational risk due to inbuilt security in the workflow
- Faster Customer Services - reduced turnaround-time on service requests, queries and MIS

For the government
- More efficient financial system for the country
- Improved transaction flows for bulk cheque transactions
5. Participants

Participants in the Cheque Truncation System.

- NPCI
- Member banks of the Clearing House
- Sub-member banks who will participate through members
- Indirect members who can participate for submission of data and images through a member bank but will maintain a separate settlement account.
- Banks not present in the Clearing House but who have a presence in other cities where the Grid system is introduced. They can participate through the sub-membership or indirect membership route.

Roles and responsibilities

**NPCI**
NPCI is mandated to operationalise the Grid-based CTS. NPCI will act as a Clearing House / Cheque Processing Centre (CPC). NPCI will submit sessionwise settlement files to RBI in a specified format as required by RBI.

**On-boarding**
Grid-based Cheque Truncation System is open to all banks authorised by RBI.

**De-boarding**
Organisations who are withdrawing from the banking sector or those whose licenses are no longer applicable under RBI regulation are de-boarded with due consideration to cheques in process and stoppage of any further cheques being presented for Grid-based CTS.
6. Use Cases

How is the Cheque Truncation System used?

**Cheque processing for electric utility of a state**
Every month, a large electric utility company receives lakhs of cheques from its customers towards payment of electricity consumption. To ensure speedy clearance, the company utilises the cheque truncation services of its bank to complete cheque transactions in a short cycle.

- **Premium collection by large pan India insurance provider**
A pan-India life insurance company has lakhs of customers across the country who frequently pay their insurance premiums by cheque. These cheques are collected and truncated as per the city and grid where the customers are located for quicker processing of the premium payment transaction.

7. Acts

The Negotiable Instruments (NI) Act, 1881
The Information Technology (IT) Act, 2000
The Bankers’ Book Evidence (BBE) Act, 1891,