

# Survey the Electronic Fund Transfer Systems in use across the world and comparison with the Indian scenario

Prabhat Dansena<sup>1</sup>, Nidhi Agrawal<sup>2</sup>, Abhishek Patel<sup>3</sup>, Aruna Shrivastava<sup>4</sup>

IDBRT UoH Hyderabad, GEC Raipur, IITM Gwalior, RCET Bhilai

## ABSTRACT

*In order to improve banking services Electronic Fund Transfer system is adopted which is the next improved variation to e-cheques. It allows faster transfer of funds reduces paper work and allows remote access to manipulate ones' own accountings.*

*In the countries like India, where in rural zones, the banking is not completely electronic, NEFT (National Electronic Fund Transfer) allows fund transfer from a walk-in customer to deposit at an NEFT enabled branch and (or) from among account to account in any Indian Bank and its branches. NEFT is a batch processed system that also allows future dated and recurring type of e-transactions, suitable for EMI payments and electricity, telephone bills, taxes, etc.*

## Keywords

*Electronic Fund Transfer, E-cheque, NEFT, EMI, e-transaction.*

## 1. INTRODUCTION

EFT in India is operated by Reserve Bank of India that enables money transfer from among A/c to A/c of any Indian Nationalized Bank and its branches [1].

Since EFT is computerized so it is least prone to error, faster and is protected by security certificates. So we can say it is safe to operate via distant places. The main advantage of using EFT over manual system is that it makes it easier for the client to transfer funds without visiting the bank and from anywhere. Individuals, firms or corporate maintaining accounts with a bank branch can receive funds through the NEFT system. The system is designed in such a way that we can operate our account even without having in-depth knowledge of banking system.

This paper gives a survey of successful and operating EFT systems of different nations with comparison to Indian EFT system so as to enlighten the improvements that can be made and appreciate the good in it.

## 2. INDIAN EFT

RBI EFT is introduced by Reserve Bank of India to help banks offering their customers money transfer service from account to account of any bank branch to any other bank branch in places where EFT services are offered[1].

Indian Financial System Code (IFSC) - is an alphanumeric code that uniquely identifies a bank-branch participating in the two main electronic funds settlement systems in India the real time gross settlement (RTGS) and the national electronic funds transfer (NEFT) systems. This is an 11-character code with the first four alphabetic characters representing the bank, and the last seven characters representing the branch. The fifth character is 0. IFSC is used by the NEFT & RTGS systems to route the messages to the destination banks/branches [1].

**Limit on the amount of individual transaction-** no value limit for individual transactions [1].

**Necessity for all branches to install computer system-** Not necessary for all branches to have computer systems. Branches can send the remittance details to their service branch in paper format [1].

**Processing charges-** Government has said that NEFT should be free of charge but left on respective banks [1].

**Who can transfer and who can receive funds-** Individuals, firms or corporate maintaining accounts with a bank branch can transfer funds using NEFT. Even such individuals who do not have a bank account (walk-in customers) can also deposit cash at the NEFT-enabled branches with instructions to transfer funds using NEFT [1].

Individuals, firms or corporate maintaining accounts with a bank branch can receive funds through the NEFT system. It is, therefore, necessary for the beneficiary to have an account with the NEFT enabled destination bank branch in the country.

The NEFT system also facilitates one-Waycross-border transfer of funds from India to Nepal. This is known as the Indo-Nepal Remittance Facility Scheme. A remitter can transfer funds from any of the NEFT-enabled branches in to Nepal, irrespective of whether the beneficiary in Nepal maintains an account with a bank branch in Nepal or not. The beneficiary would receive funds in Nepalese Rupees [2].

### 3. COMPARISON OF INDIAN NEFT WITH DIFFERENT COUNTRY EFT

#### a) Canada

**INTERAC e-Transfer** formerly called as **INTERAC Email Money Transfer** the service provider is the service is provided by **Acxsys Corporation** [3].

INTERAC e-Transfer resembles an e-check in many respects. The money is not actually transferred by e-mail. Only the instructions to retrieve the funds are.

- The sender opens an online banking session and chooses the recipient, the amount to send, as well as a security question and answer. The funds are debited instantly, usually for a surcharge.
- An e-mail or text message is then sent to the recipient, with instructions on how to retrieve the funds and answer the question, via a secure website.
- The recipient must answer the security question correctly. If the recipient fails to answer the question correctly after three tries, then the funds will automatically be returned to sender.
- If the recipient is subscribed to online banking at one of the participating institutions, the funds are deposited instantly at no extra charge.
- If the recipient's deposit account is not at one of the participating institutions or not subscribed to online banking at all, the funds are deposited within three to five business days, and a surcharge (currently \$4.00) is deducted from the amount received.

#### Comparison with NEFT

With comparison to the CANADA **INTERAC Email Money Transfer** in India **NEFT** we are using sms based verification whereas in **INTERAC Email Money Transfer** they are using either of sms or email[3][1].

In **NEFT** all the which banks are connected are possible at receiving side whereas in **INTERAC e-TRANSFER** money can be transferred to any bank if it is not the participant of the service than it will take some extra time for process.

**Future-dated transfers-** is possible in only **NEFT** means we can schedule some payment in future not in **INTERAC Email Money Transfer**.

In **NEFT** there are charges in most of the banks with variation in charges as the service charges where as in **INTERAC e-TRANSFER** the participating banks are kept free of cost and surcharge currently \$4.00 is if the receiving bank is not in the **INTERAC e-TRANSFER**.

A **future-dated transfer** is possible in **NEFT** whereas in **INTERAC e-TRANSFER** it is not possible.

#### b) Bank of America EFT

**Email transfers-** With Bank of America's enhanced transfer service you can securely send money to friends, family or co-workers using only their email address or mobile phone number. Using Online Banking or your Mobile Banking App you can easily make Email and Mobile transfers on the go with no fee [4].

#### Types of transfers

Between accounts you own at Bank of America from someone's personal account(s) to the personal account(s) of other Bank of America customers.

Between someone's personal Bank of America account(s) and in-network account(s) at other financial institutions, if you sign up for the email transfer service.

Between someone's personal Bank of America account(s) and the personal account(s) you own at other financial institutions, if you sign up for Transfers Outside Bank of America service.

Between someone's personal Bank of America account(s) and in-network account(s) at other financial institutions, if you sign up for the email and Mobile transfer service.

Between your personal Bank of America account(s) and the personal account(s) you own at other financial institutions, if you sign up for Transfers Outside Bank of America service.

**Future-dated transfers-** One schedule future-dated transfers between his Bank of America accounts up to a year in advance. Recurring transfers can be made at regular intervals, such as once a week, once a month, every three months and more. There are some limitations to the types of accounts available for recurring or future-dated transfers. See the Online Banking Service Agreement or help within Online Banking for specifics.

**Available funds-** Registered recipients who have Bank of America accounts and are receiving money from a Bank of America customer will have funds delivered immediately. Customers receiving money into accounts at other banks or receiving money from other banks will have funds delivered to their banks within three business days after registering their email or mobile number [4].

#### Comparison with NEFT

In both of the EFT in Indian and American having the facility of scheduling, Recurring transfers can be made at regular intervals, such as once a week, once a month, every three months and more. This is being used in NEFT for the payment of telephone, electricity bill even in NEFT we can give some restriction or limitation on the limit.

**Available funds-** In NEFT the fund is delivered in the same day and if recipient is not registered in senders account for NEFT it will take 48 hrs max to add and transfer is done in same working day American EFT if registered recipients

customer will have funds delivered immediately. Customers receiving money into accounts at other banks or receiving money from other banks will have funds delivered to their banks within three business days after registering their email or mobile number in American bank and for NEFT it will take 48 hrs max to add and transfer is done in same business day.

**PROCESSING**– NEFT is batch processing processed end of the day and clearing is done in batch and the **American EFT** is real time (RTGS)

NEFT is NET settlement whereas the **American EFT** is gross settlement [4] [1].

### c) Japan

**BOJ-NET Funds Transfer System**- the BOJ-NET Funds Transfer System is an online electronic funds transfer system introduced in 1988. The BOJ-NET comprises two systems: a system for funds transfers (BOJ-NET Funds Transfer System) and a system for the settlement of JGBs (BOJ-NET JGB Services). Although the BOJ-NET Funds Transfer System originally offered both designated-time settlement mode and RTGS mode for the settlement of funds, the Bank of Japan abolished designated-time settlement and made RTGS the only available settlement mode at the beginning of 2001[5].

**Types of transaction**-The **BOJ-NET Funds Transfer System** offers most of the payment services provided by the Bank of Japan, which are:

- Funds transfers between financial institutions stemming from interbank money market and securities transactions.
- Funds transfers between different accounts of the same financial institution;
- Settlement of net positions arising from privately owned clearing systems; and

Funds transfers between financial institutions and the Bank of Japan, including those for open market operations. Most funds transfers made through the **BOJ-NET Funds Transfer System** are credit transfers, but in the case of in-house funds transfers, debit transfers can also be made. A sending bank can transmit a payment instruction with information regarding it's and/or the receiving bank's customers [5].

### Comparison with NEFT

In **NEFT** there are charges in most of the banks with variation in charges as the service charges where as in **BOJ-NET Funds Transfer System** all current account holders without charge.

**NEFT** only allows the credit transfers whereas the **BOJ-NET Funds Transfer System** allows credit transfers, but in the case of in-house funds transfers, debit transfers can also be made.

**Processing**– **NEFT** is batch processing processed end of the day and clearing is done in batch and the **BOJ-NET Funds Transfer System** is real time (RTGS)

**NEFT** is NET settlement whereas the **BOJ-NET Funds Transfer System** is gross settlement [5] [1].

### d) California

**NAME**- State of California EFT

Electronic Funds Transfer (EFT) is an electronic method for making payments. Funds are transferred from your bank account to the State's bank account. Your payment information is transmitted to the Employment Development Department (EDD), eliminating the need to send a paper check and payment document [6].

**Type 1 Mandatory EFT Filing for Payroll Tax Deposits**- Each year your account is reviewed to determine if you meet the requirement for mandatory EFT filing. If the **average** (per payment) deposit for State Disability Insurance and Personal Income Tax is \$20,000 or more for the prior State Fiscal Year (July 1 through June 30), employee are required to make all SDI and PIT deposits by EFT during the next calendar year[6].

**2 Voluntary EFT Filing**- If you do not meet the mandatory EFT requirement, we encourage you to file by EFT on a voluntary basis as it is a secure, efficient and cost-effective method to make your payments[6].

**ACH Debit Method**: The ACH Debit method transfers funds directly to EDD by authorizing the State of California to electronically debit your bank account. There is no cost to use the ACH Debit method. Payments may be scheduled in advance (warehoused) up to 90 days. Payment transactions must be completed before 3:00 p.m. Pacific Time for the funds to settle on the next banking day [6].

**ACH Credit Method**: The ACH Credit method allows you to transfer funds by instructing your bank to debit your bank account and transfer those funds to the State's bank account. You need to provide your bank with an *Information for Your Bank* [6].

**Mainly used by**- State of California Employment Development Department in order to reduce the overhead of the department for the salary and to get the tax also.

### Comparison with NEFT

**State of California EFT** is mainly for the employee payment distribution and the tax collection but also provides **ACH Credit Method** which allows you to transfer funds by instructing your bank to debit your bank account and transfer those funds to the State's bank account. But in India we have **ECS CC** (electronic clearing service credit clearing) and **ECS DC** (electronic clearing service debit clearing). **NEFT** is for general purpose as the **ACH Credit Method**.

**State of California EFT** is only for department people whereas the **NEFT** is for the entire account holder in the Indian bank [6] [1].

**Available funds-** In NEFT the fund is delivered in the same day and if recipient is not registered in senders account for NEFT it will take 48 hrs max to add and transfer is done in same working day. In the State of California EFT ACH Debit payments that are completed before 3 p.m., Pacific Time can settle the next banking day[1][6].

**Future-dated transfers-** Both NEFT and the State of California EFT provide the prior scheduling of the payment and transfer [1] [6].

### e) Bangladesh

**NAME-** Bangladesh Electronic Fund Transfer Network (BEFTN)

BEFTN has started its 'Live Operation' on 28th February 2011 with the objective to decrease paper-based payment methods and encourage paper-less payment methods for secured, faster & cost-effective transactions especially at the corporate levels. The Network started with credit transactions and started debit transactions from 15 September 2011.

BEFTN facilitates the transmission of payments between the banks electronically, which makes it faster and efficient means of inter-bank clearing over the existing paper-based system. It is able to handle a wide variety of credit transfers such as payroll, foreign and domestic remittances, social security, company dividends, retirement, expense reimbursement, bill payments, corporate payments, government tax payments, veterans payments, government license fees and person to person payments as well as debit transfers such as mortgage payments, membership dues, loan payments, insurance premiums, utility bill payments, company cash concentration, government tax payments, government licenses and fees[7].

### Schedule

1. **Payroll Credits:** All payroll credit origination will be sent to the Bank by 4:00 p.m. time before the settlement date of the subject Entries [7].
2. **Debit Entry:** The data file containing debit entry information will transmitted to Bank BEFTN Department by 4:00 p.m. one business day before the settlement date of the subject Entries. All files received after the above-referenced 4:00 p.m. deadline will be processed the following business day [7].
3. **Other Credits:** All other credit origination Entries must be submitted by 4:00 p.m. business day before the settlement date of the subject Entries [7].

### Limit

The Originator's daily limit for originated credit Entries will be the lesser of the Originator's current balance in the Originator's Bank Account [7].

### Comparison with NEFT

NEFT and BEFTN both are used for the multiple payments as loan payments, insurance premiums, utility bill payments and transfer [7] [1].

**Processing-** both are batch processing processed end of the day and clearing is done in batch. Both have no limit on per day per customer limit on the amount to be transfer [7] [1].

### 4. CONCLUSIONS

The NEFT is bridging the electronic and non-electronic banking systems as it allows e-fund transfers to those banks across the nation who doesn't provide NEFT facilities. This makes it suitable in rural zones of India.

The limitation with Indian EFT system is being batch processed. Once it gains the real time processing, it will attain more consumer satisfaction and appreciation.

There should also be provisions for fund transfers in credit in Indian EFT.

So far Indian EFT system offers transactions within India and in Nepal, the EFT systems of the world should globalize and widen the scope of e-transactions.

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### Author's Profile

#### 1. Prabhat Dansena

M. Tech. in Information Technology from University of Hyderabad (Central University), Hyderabad with celebration to Institute for development and research in banking technology.



**2. Nidhi Agrawal**

**B. E. in Computer science from Government Engineering College, Raipur.**



**3. Abhishek Patel**

**M. Tech. in Computer Science (Specialization: Information Security) from Atal Bihari Vajpeyi-Indian Institute of Information Technology and Management, Gwalior.**



**4. Aruna Shrivastava**

**M. Tech. in Software Engineering from Rungta College of Engineering and Technology, Bilai.**

