

Electronic Cheque Clearing Operating Rules

November 2011

(Updated -July 2015)

Kathmandu, Nepal

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DEFINITIONS

<i>Term</i>	Definition
<i>Accepted Cheques</i>	The cheques that were replied by the Paying Member as accepted.
<i>Apparent Alteration</i>	The original cheque looks like changed.
<i>ECC</i>	Electronic Cheque Clearing System an interbank cheque clearing solution.
<i>NRB</i>	Nepal Rastra Bank.
<i>Cheque Cycle</i>	A counter that shows the number of the presentment times for a cheque in the ECC.
<i>Cheque Date</i>	The date that is written on the cheque (due date).
<i>Cheque Truncation</i>	Scanning the cheque and transferring its electronic image and data without moving the physical cheque to the Paying Member.
<i>Clearing Date (T)</i>	The date on which the cheque shall move from the Presenting Member to the Paying Member to be cleared. In other words, it is the date on which the customer account will be credited in the Presenting Member.
<i>Clearing House</i>	Nepal Clearing House Limited
<i>Clearing Sequence Number</i>	Unique identifier generated automatically by the system for every cheque scanned through the system. Re-presentment of the same cheque will have a new identifier.
<i>Clearing Session Date</i>	The date on which the clearing session will be settled.
<i>Clearing Session Number</i>	A unique number generated automatically by the system, and it identifies each clearing session.
<i>Certification Authority</i>	Is an authority in a network that issues and manages security credentials and public keys for message encryption
<i>Electronic Payment Information</i>	The cheque payment information exchanged through ECC.

<i>FIs</i>	Financial Institutions that process cheques payments, and has a membership in ECC.
<i>Go Live</i>	The date the ECC system comes into operation.
<i>Honored Cheques</i>	The cheques that were received by a Presenting Member as accepted by a Paying member.
<i>Image</i>	The electronic scanned cheque image (face and back).
<i>MICR</i>	Magnetic Ink Character Recognition MICR Line is the information printed on a designated space (bottom) of the cheque that is read automatically at the scanning stage.
<i>Mutilated</i>	Damaged cheque image that causes unclear and/or misleading cheque information.
<i>NCHL</i>	Nepal Clearing House Limited, the Clearing House that hosting and operating the ECC.
<i>NCP</i>	<i>Net Clearing Position</i> that represents the financial position for each member at the closure of each clearing session, The NCP might be net debit or credit, and it is calculated on a multilateral basis.
<i>Non-Standard Cheques</i>	Old design cheques that don't fulfill the new Standards and Specifications for cheques issued by NRB.
<i>Member</i>	Bank or Financial Institution that process cheques payments, and has a membership in ECC.
<i>Paying Member</i>	A Member that issues Cheques Book and those cheques are presented by a Presenting Member through ECC for clearing.
<i>PKI</i>	Public Key Infrastructure.
<i>Post Dated Cheque</i>	A cheque that holds a future value date.
<i>Presenting Member</i>	A Member that receives a cheque drawn on other member from the customer scans and submits it to ECC. It is also known as Bank of First Deposit (BFD).
<i>Presented Cheques</i>	The cheques submitted through the ECC from the Presenting Member (or what is also known BFD Member) to the Paying Member.
<i>Received Cheques</i>	The cheques received by the Paying member on the Inward Clearing cycle.

<i>Rejected Cheques</i>	The cheques that were replied by the Paying Member as rejected.
<i>Returned Cheques</i>	The cheques that were received by the Presenting Member as rejected.
<i>Nepal Settlement System</i>	The System that used for settling any interbank transaction and used to settle the Net Clearing Position for the ECC members.
<i>Standard Cheques</i>	New design cheques that fulfill the new Standards and Specifications document issued by NRB.
<i>High Value Cheque</i>	Cheque with high value transaction limit.

1. INTRODUCTION

The Operating Rules will help the Members to perform their daily cheque clearing operation using ECC safely and efficiently, the Operating Rules in this document are based on the Rule Book issued by the NRB.

2. SYSTEM OPERATION

2.1 Clearing Session

ECC relies on transferring the electronic data and captured cheque images, rather than moving the physical cheques. The transferred cheques are exchanged through a daily Clearing Session that has a specific identification number, currency, urgency and settlement date. A clearing session will have a pre-defined presentment period, reply period and cut-off time for each period that specify when the cheques are allowed to be transmitted.

This section describes the terms related to the clearing session and the time of processing the ECC sessions.

1. **Clearing Date (T):** The date on which the cheque shall move from the Presenting Member to the Paying Member to be cleared. In other words; it is the date on which the customer account will be credited in the Presenting Member.
2. **Business Day:** Any day on which members are open for business to their customers as defined by NRB.
3. **Holiday:** Any day of the year that is not considered a business day including weekends as defined by NRB.
4. **Payment Exchange Period:** A period on which the ECC will accept exchanging cheques to be cleared within its clearing session. Exchanging payments begins by the start date and time of the period, and ends by the payment period's end date and time. Holidays will not be considered as part of the calculation of the payment exchange period.
1. **First Cut-off Time (Presentment Cut-off time):** The time when all cheques within the clearing session must be submitted by the Presenting members.
5. **Second Cut-off Time (Reply Cut-off Time):** The time when all cheques must be replied by the Paying Members.
6. **Urgency level:** ECC shall support the following urgency levels:
 - **Regular Clearing Session:** For regular cheques clearing.
 - **Express Clearing Session:** Critical timely-based cheque clearing which requires immediate reply from the Paying Member.
 - **High Value Clearing Session:** For high value cheques clearing.
 - **Adjustment Clearing Session:** For adjustment transaction clearing.
7. **Net Clearing Position (NCP):** The financial position for each member that is calculated on a multilateral basis, it might be net debit or net credit position. The NCP is generated after the closure of each session. Moreover, each member can view a Net Position Report at any point of time during the clearing session and before the closure of the session takes place.

8. **Settlement:** The period on which ECC settles all cleared transactions with the settlement system in NRB.

2.2 Daily Clearing Sessions

ECC will have different clearing sessions that will be settled in Nepalese Rupee, US Dollar, EURO and Sterling Pound on each business day as the following:

Time	Business Period	Operation
14:00 (T-1)	- Regular Clearing Session starts	Presenting Member present cheques for Regular Clearing Sessions.
12:00 (T-1)	- Non-Standard Session starts	Presenting Member present cheques for Non-Standard Clearing Sessions.
10:00 (T)	- The 1 st Express Session starts	Presenting Member present cheques for the 1 st Express Session.
10:00 (T)	- High Value Clearing Session starts	Presenting Member present the cheque for the High Value Clearing Session.
	- Adjustment Clearing Session starts	Presenting Member presents the adjustment for the Adjustment Clearing Session.
10:00 (T+3)	- End of presentment for the Adjustment Clearing Session	End of presentment of the Adjustment Clearing Session
10:30 (T)	- End presentment for the High Value Clearing Session	End of presentment of the High Value Clearing Session
11:00 (T)	- End presentment for the 1 st Express Clearing Session	End of presentment of the Express Clearing cheques for the 1 st Express Clearing Session.
	- The 2 nd Express Clearing Session starts	Any further Express Clearing cheque received by the Clearing House will be scheduled for clearing on the 2 nd Express Clearing Session.
11:30 (T)	- End reply for the 1 st Express Clearing Session.	End of reply/return period for the 1 st Express Clearing Session.

	- End of reply for the High Value Clearing Session.	End of reply/return period for the High Value Clearing.
	- End of reply for the Adjustment Clearing Session.	End of reply/return period for the Adjustment Clearing.
	- Settlement of the 1 st Express Clearing Session	ECC submits the Net Clearing Position for the 1 st Express Clearing to the settlement system.
	- Settlement of the High Value Clearing Session.	ECC submits the Net Clearing Position for the High Value Clearing to the settlement system.
	- Settlement of the Adjustment Clearing Session.	ECC submits the Net Clearing Position for the Adjustment Clearing to the settlement system.
12:00 (T)	- End presentment for the 2 nd Express Clearing Session	End of presentment of Express Clearing cheques for the 2 nd Express Clearing Session.
	- The 3 rd Express Clearing Session starts	Any further Express Clearing cheque received by the Clearing House will be scheduled for clearing on the 3 rd Express Clearing Session.
12:30 (T)	- End reply for the 2 nd Express Clearing Session	End of reply period for the 2 nd Express Clearing Session.
	- Settlement of the 2 nd Express Clearing Session	ECC submits the Net Clearing Position for the 2 nd Express Clearing to the settlement system.
13:00 (T)	- End presentment for the 3 rd Express Clearing Session	End of presentment for the 3 rd Express Clearing Session. Any further Express Clearing cheque received by the Clearing House will be returned with a return reason “no open session”.
13:30 (T)	- End reply for the 3 rd Express Clearing Session	End of reply period for the 3 rd Express Clearing Session.
	- Settlement of the 3 rd Express Clearing session	ECC submits the Net Clearing Position for

		the 3 rd Express Clearing to the settlement system.
13:45 (T)	- Customer cut-off time	End of accepting cheques from customers, charges will be applied on the cheques presented after that time
14:00 (T)	- End presentment for Today's Regular Clearing Session.	End of presentment for today's Regular Clearing Session. The last time for receiving cheques from customers for the daily clearing session
	- Regular Clearing for the 'Next' business day starts	Any further Regular Clearing cheques received by the Clearing House after this time will be scheduled for clearing on the Regular Clearing Session of the next business day.
12:00 (T)	- End presentment for Today's Non-Standard Clearing Session	End of presentment for today's Non-Standard Clearing Session. The last time for receiving cheques from customers for the daily clearing session
	- Non-Standard Clearing for the 'Next' business day starts	Any further Non-Standard Clearing cheques received by the Clearing House after this time will be scheduled for clearing on the Non-Standard Clearing Session of the next business day.
15:00 (T)	- End reply for the Regular/Non-Standard Clearing session.	End of reply period for today's Regular/Non-Standard Clearing cheques.
	- Settlement of Today's Regular/Non-Standard Clearing cheques	ECC submits the Net Clearing Position for today's Regular/Non-Standard Clearing Session to the settlement system.
15:00 (T)	- End of day reports and reconciliation	
16:00 (T)	- End of today's business day	

- Customer cut-off time (End of accepting cheques from the customer) takes place at 13:45 on the current business day; extra charge will be applied on the cheque presented after that time.

- NRB can modify the daily clearing session timings as deemed appropriate and as per the recommendations of NCHL.

2.3 Session Exceptions

2.3.1 Session Extension

In certain and emergency conditions a Member asks for additional time more than the normal time of the regular session to process **the reply only**.

NRB has the full authority to approve or reject the extension, and the NCHL will notify all members with the session extension period.

In case of session extension, the following shall be followed:

1. The Member requesting an extension must send this request to the NRB and inform NCHL at least one hour prior the reply cut-off time.
2. Member will fill a session extension form - that will be designed and circulated by NCHL- and send it to the NRB via Fax or any secured channel.
3. NRB will send an official approval to NCHL in order to extend the clearing session as requested via Fax or any secured channel.
4. If the session extension is approved by NRB, the settlement system will be extended accordingly.
5. The maximum time extension should be 30 minutes for each extension.

2.3.2 Session Termination

NRB has the full authority to terminate a session for any reason it deems appropriate. NCHL will notify all Members. In this case; the following shall be followed:

1. The Clearing House will stop accepting presented cheques on the terminated session.
2. All pending cheques for the terminated session in the Clearing House will be auto- rejected with a reason “session terminated”
3. All cheques that were already replied by the Paying Member will be settled on the next available session.

2.3.3 Sudden Holidays

In case of a sudden holiday or force majeure (unscheduled holiday) has been declared by NRB, the following shall be followed:

- Regular /Non-Standard Clearing Session:
 - Session shall be extended for the next available session.
- Express clearing Sessions:

- No new presentment for cheques will be accepted for the open session and the other sessions.
- All pending cheques will be auto rejected with a return reason “session terminated”.
- High Value Clearing Sessions:
 - No new presentment for cheques will be accepted for the open session and the other sessions.
 - All pending cheques will be auto rejected with a return reason “session terminated”.
- Adjustment Clearing Sessions:
 - Session shall be extended for the next available session

2.4 Settlement Schedule

ECC prepares the Net Clearing Position (NCP) file for all Members in a multilateral basis at the end of each session (Regular and Express), and submits the NCP file to the settlement system in NRB for settlement.

The normal daily schedule for ECC to commence settlement process with settlement system in NRB is as follows:

Clearing Session	End Reply	Submit NCP to NRB	Settlement at the NRB	Crediting Customer Account
1 st express	11:30 (T)	11:40 (T)	12:00 (T)	Within 20 minutes of the settlement at NRB (T)
High-Value Clearing	11:30 (T)	11:40(T)	12:00(T)	Within 20 minutes of the settlement at NRB(T)
Adjustment Clearing	11:30(T+3)	11:40(T+3)	12:00(T+3)	Within 20 minutes of the settlement at NRB(T+3)
2 nd express	12:30 (T)	12:40 (T)	13:00 (T)	Within 20 minutes of the settlement at NRB (T)
3 rd express	13:30 (T)	13:40 (T)	14:00 (T)	Within 20 minutes of the settlement at NRB (T)
Regular	15:00 (T)	15:10 (T)	15:30 (T)	Crediting the Customer Account at

				16.00 maximum (T)
Friday session	11:30 (T)	11:40 (T)	12:00 (T)	Within 20 minutes of the settlement at NRB (T)
Non-Standard session	15:00 (T)	15:10 (T)	15:30 (T)	Crediting the Customer Account at 16:00 maximum (T)

3. CLEARING OUTWARD CHEQUES

3.1 Outward Clearing for Regular Cheques

The Presenting Member has to follow the steps below in the outward clearing of the cheques deposited by their customers:

1. Physical examination of the cheque
2. Cheque Presentment stamping
3. Scanning the cheques
4. Data Entry for captured cheques
5. Deposit slip printing
6. Quality Assurance & Repair (if necessary) for cheques
7. Transmission and Presentment of cheques
8. Reply reception and processing
9. Customer credit account
10. Return processing

3.2 Physical Examination of the Cheque

It is the responsibility of the Presenting Member to manually examine all physical cheques before scanning them into the ECC as per the NRB Cheque Standards and Specifications.

1. It is the responsibility of the Presenting Member to check if the physical cheque is a genuine cheque and that it satisfies:
 - a. Ultra violet
 - b. Watermark
 - c. Microprint
 - d. Thermo-chrome
 - e. The cheque has not been tampered with
2. Ensure that the cheque date is correct and valid.
3. Ensure that the cheque is signed
4. Ensure the amount in words and figures are matching
5. Ensure that the beneficiary name exists on the cheque
6. Ensure that the cheque is **Not** stamped more than two times
7. Ensure that the cheque is **Not** stamped as a Cleared/Accepted. (The stamp means that the cheque is already captured into the ECC and paid by the Paying Member)
8. Ensure that the cheque is endorsed properly.

3.3 Cheque Presentment Stamping

Presenting Member must stamp the cheque with the presentment date at the back (*right hand side*) of the physical cheque before the scanning. In case of re-presentment, the previous stamp must be “Cancelled” first.

The Presentment Stamp shall contain the member information as the following:

- Member Name
- Branch Name
- Cheque Presentment Date
- Stamp size shall be: 1cm in height and 4 cm in width

3.4 Scanning of Cheques

The Presenting Member has to have qualified and trained staff for scanning and capturing electronic images of the cheques, as well as the MICR line data. Multiple cheques can be scanned where they are grouped inside batches.

The Presenting Member must create a batch for grouping cheques with the following common information:

- Presenting Member
- Presenting Branch
- Presenting Member Account Number (Beneficiary)
- Reference Number (optional)
- Currency Name
- Urgency (Session Type)

The ECC shall:

1. Allow users to upload the current batch and all existing batches to the server.
2. Prevent uploading duplicate cheques.
3. Prevent users from uploading unbalanced batches.
4. Handle cheque scanned face and back sides.

3.5 Data Entry

The Presenting Member must perform Data Entry for completing and balancing the batch and scanned cheques information. The following information must be completed and entered by the user, where necessary:

1. Cheque Amount
2. Cheque Date
3. Beneficiary Account number.
4. Any correction to the MICR line data (if it has not been successfully captured in the scanning process)

5. In case of having a cheque with design (not a standard cheque), a flag must be checked.
6. The Presenting Member shall be liable if the repaired MICR line differs from that actual MICR line on the original cheque.

3.6 Deposit Slip Printing

Presenting Member may print a Deposit Slip from ECC for the captured cheques as an evidence for receiving the cheques from the customer and that they will be deposited into the account on time upon realization. In case that a member use the pre-printed form, the time of cheque deposit must be written of the deposit slip.

3.7 Quality Assurance

The Presenting Member must adopt its internal auditing procedure for performing quality assurance of cheques captured into ECC to ensure that a proper control is applied.

Assuring the quality of the batch/cheques includes, **and not limited to the following items**

1. The cheque date.
2. The cheque is signed. Ensure the existence of the signature on the cheque.
3. The amount in words and figures are matching.
4. The beneficiary name is existed on the cheque.
5. Any alteration on the cheque is authenticated by the drawer.
6. The beneficiary's endorsement is proper.
7. If the cheque looks Non-conforming, the quality assurance staff must select the option of "physical paper required" for the Paying Member to check.
8. The MICR line data against the captured data is same.
9. The quality of the image (clear and readable). The ECC helps by providing the following image analysis and enhancement tools:
 - Detecting and enhancing too light images
 - Detecting and enhancing too dark images
 - Detecting and enhancing excessive document skew
 - Detecting and enhancing torn document edges
 - Detecting and enhancing torn document corners
10. The data entry or repair has not incorrectly changed the MICR data compared to the MICR line.

3.8 Transmission of Cheques

The Presenting Member submits the cheque to the Clearing House as soon as possible from the Deposit time according to sessions timing.

3.9 Reply Reception and Processing

The ECC provides inquiry feature to the members on the replied batches which are sent from Paying Member. The replied batches information identifies cheques which are accepted/ returned by the Paying member.

The Presenting Member can send the rejected cheques for repairing to send them again to the ECC after the returned reasons are rectified.

The returned cheques contain the main return reason that was specified by The Paying Member and the cheque image.

3.10 Credit Customer Account

The Presenting Member should credit the customer account after receiving the advice of the settlement from NRB for the regular session not later than 16:00 of the same business day.

In case of the Express Cheque Clearing, the customer account to be credited not more than 20 minutes from the time that the respective express clearing net settlement file settles in the settlement system at the NRB (after receiving the advice of the settlement from NRB).

3.11 Return Processing

3.11.1 Advice Printing

Presenting Member prints a Returned Cheque Advice from ECC for each cheque that has been replied with rejection by the Paying Member and stamped as returned.

The cheque which has been rejected or returned to the Presenting Member from the ECC or the Paying Member shall be returned to the customer attached with the printed “Cheque Return Advise” from the ECC showing the return reason.

3.11.2 Cheque Returned Stamping

In case of rejection, the Presenting Member should stamp the cheque with “Rejected/Returned” at the back side of physical cheque (*Top Left hand side*).

In case of re-presenting the cheque, the Presenting Member shall stamp another presentment at the back side of the physical cheque.

3.12 Outward Clearing for Express Cheques

The Presenting Member has to follow the steps as in “**Outward Clearing for Regular Cheques**” for the express cheques deposited by their customers as per the session timing.

3.13 Handling Non-conforming Cheques

If the Presenting Member noticed a Non-conforming cheque, the cheque should be flagged as “**Physical Paper Required**” at the depositing/entry time. The ECC will submit the cheque information along with this flag to the Paying Member.

In this case; the Paying Member can pay the cheque on its responsibility, or reject the cheque on ECC and ask for the original cheque.

If the Paying Member rejected the Non-conforming cheques that are not flagged with “**Physical Paper Required**” and asked for the physical cheque to be sent by the Presenting Member, then the Physical cheque must be sent outside the system.

The cheque is considered as a Non-conforming Cheque in case:

1. A cheque that does not conform to the NRB Cheque Standards and Specifications
2. Missing payee name, date, amount in words and/or figures, account number, signature and/or Ultra Violet fields, watermark, microprint of the signature line
3. Cheque date is ‘invalid’ (defined as postdated or stale)
4. The amount in words and figures are not matching.
5. Amended MICR line information, i.e. cheque serial number, member code, branch code, Account number, and/or transaction code field.
6. Cheques mutilated by members or customers.
7. Cheques with apparent alterations (cheque has been tampered with)
8. Any alteration in the fields which are not accompanied with the drawer signature

3.14 Post Dated Cheques

ECC accept the Post Dated Cheques (PDC) submitted from customers to a Presenting Member and will be maintained under the Presenting Member till the due date.

- When the payment date of a PDC is due, the Presenting Member shall submit the cheque either automatically or manually to the regular clearing session.
- ECC does not restrict the future value date of the Post Dated Cheque. Therefore; the Presenting Member can decide and according to its internal policies how to handle their postdated cheques.

3.15 Stale Cheques

The stale cheques that is presented with a date of issue that has exceeded six (6) months from the date of the cheque or the time period specified on the cheque. The stale cheques will be returned automatically from the Clearing House before being received by the Paying Member.

3.16 Handling ATM Cheques

Customers can deposit their cheques at their convenience time to be cleared by using the ATM machine. Cheques that are deposited through the ATM machines shall be cleared by the next business day through the Regular or Express Clearing Sessions according to the customer request. The clearing process for the ATM deposited cheques shall be handled as the following:

1. The customer deposits the cheque through the ATM machine, and receives a deposit slip immediately noting that the cheque will be cleared within two business days of its deposit time.
2. The customer can request a deposit slip from his member/branch at his convenience, and the deposit slip shall include the deposit time (reception time) as an evidence for the customer's right to have the cheque deposited into his account within two working days from the date/time of depositing the cheque.
3. The physical cheques deposited in the ATM must be collected by the Presenting Member and delivered to the Presenting Member premises within two business days for entry and validation purposes.
4. The Presenting Member completes the whole Outward Clearing process and submits the cheque image through the clearing session of the clearing day (T).
5. The customer account will be credited not later than 16:00 for the clearing day, same settlement process will be followed as in the case of the Regular and Express Clearing Session (T).

3.17 Maintaining Physical Cheques

The Presenting Member shall retain the physical cheque that is already cleared in the member/branch for at least **two** business days before being sent to the archive.

Upon an official request (i.e. NRB request, Court order), the Presenting Member should make the physical cheque available within **six** business days.

The Presenting Member shall preserve the physical cheques that are already cleared for at least **Seven years** from the date of payment except for cheques under disputes.

4. CLEARING INWARD CHEQUES

4.1 Inward Clearing for Regular Cheques

The Paying Member must perform the following steps in the inward clearing for cheques sent from ECC:

1. Technical Clearing of cheques
2. Financial Clearing of cheques
3. Clearing Approval of cheques

4.1.1 Early Items

ECC daily operations start the clearing session after 14:00 for the clearing session of the next business day (T-1). ECC accepts cheques presented after 14:00 and it submits them to the Paying Member accordingly. The Paying Member stores cheques in a special queue called “Early Items”. If the Paying Member decided to work on the early cheques, the user shall press the “release from early items” to move all these cheques to the technical clearing queue.

4.1.2 Technical Clearing

The Paying Member must have qualified and trained staff to perform Technical Clearing of cheques against a specific technical checklist. The technical checklist must include, **but not limited to the following items**:

1. The cheque is drawn on the Paying Member
2. The cheque signature matches payer customer’s signature.
3. The amount in word and figures are matching.
4. Whether any alternation on the cheque is signed.
5. That the cheque date must be same as or before the current business date.
6. That the cheque is not out of date.
7. The MICR line on the cheque image against data captured is the same.
8. The authenticity of the cheque image that will be guaranteed by the PKI digital signature infrastructure.
9. The cheque doesn’t require special handling.
10. The cheque is not a stopped cheque.

4.1.3 Financial Clearing

The Paying Member must check the following financial clearing items:

1. The payer customer’s account is not blocked or closed.
2. The payer customer’s account has available sufficient funds.

4.1.4 Clearing Approval

The Paying Member must perform the clearing approval for the cheque, after the technical clearing and the financial clearing steps are completed. The action for clearing approval must be either:

1. Approve the payment of the cheque to the Presenting Member, or
2. Reject the cheque with a valid return reason(s).

4.2 Inward Clearing for Express Cheques

The Paying Member has to follow steps as in “**Inward Clearing for Regular Cheques**” for the inward clearing of the Express cheques.

4.3 Stop Pay Cheques

The Paying Member has to define and update the list of Stop Pay cheques in ECC (**Optional**). The ECC shall verify if any inward clearing cheque has a match with the stop pay list. If a match is identified, the ECC shall tag the cheque and inform the Paying Member user at the technical and financial clearing stages.

The Paying Member must be responsible for any addition or correction to the stop pay cheques list in the ECC.

The Paying Member must be responsible to return the cheque with a reason “Stop Pay Matched”. (**Optional**).

4.4 Positive Pay Cheques

Positive Pay Cheques: Good for Payments; Manager’s Cheques; Drafts; Dividend’s Cheques; IPO Refund Cheques; are some examples of positive pay cheque.

The Paying Member has to define and update the list of positive pay cheques in the ECC (**Optional**). The ECC shall verify if any inward clearing cheque has a match with the positive pay list. If a match is identified, the ECC shall tag the cheque with an information message to inform the Paying Member clearing user at the technical clearing and financial clearing stages.

4.5 Transaction Limits

The following are the cheque limits that is defined by NRB:

1. All cheques with amount below NPR 100,000,000 shall be sent through the Regular or the Express Clearing Session.
2. All cheques with amount above NPR 100,000,000 up to NPR 200,000,000 and all cheques above 1,000,000 up to 2,000,000 in case of USD, EURO and GBP shall be sent through the High Value Clearing Session.
3. All cheques with amounts above NPR 200,000,000 and above 2,000,000 in case of USD, EURO and GBP shall be automatically rejected by ECC.
4. All cheques presented in Adjustment clearing session with amounts above NPR 10,000 and 100 in case of USD, GBP and EURO shall be automatically rejected by ECC.

In case of NPR Sessions:

Amount Above or Equal	Amount Less	Session Type
NPR 0.001	NPR 100,000,000.000	Regular
NPR 0.001	NPR 100,000,000.000	Express
NPR 100,000,000.001	NPR 200,000,000.000	High-Value
NPR 0.001	NPR 10,000.000	Adjustment Clearing
NPR 200,000,00.001	and above	Outside ECC

In case of USD, GBP and EURO Sessions

Amount Above or Equal	Amount Less	Session Type
NPR 0.001	NPR 1,000,000.000	Regular
NPR 0.001	NPR 1,000,000.000	Express
NPR 1,000,000.001	NPR 2,000,000.000	High-Value
NPR 0.001	NPR 100.000	Adjustment Clearing
NPR 2,000,000.001	and above	Outside ECC

5. HANDLING NON-STANDARD CHEQUES

ECC will accept the old design cheques for a period defined by NRB, after that period any presentment for the old design must be rejected from the Paying Member with a reason “None standard Cheques (OLD Design)” and a penalty will be applied on the Presenting Member. The Presenting Member must present these cheques through “None Standard Cheque Session” in a separate batch.

In case of the old design cheques presented through ATMs, there is no special handling different than the cheque presented at the member.

5.1 Clearing Session for Non-Standard Cheques

To guarantee an efficient handling for the non-standard cheques (old cheques) and to give sufficient time for verification and clearing, another regular clearing sessions for the non-standard cheques (old cheques) shall be opened on daily bases with T-1 value date concept:

Any presented non-standard cheque must be responded **before the end of the regular clearing session (before the reply cut-off time)** for the non-standard cheques (old cheques); otherwise it will be accepted automatically by the system.

The regular clearing session configuration for the Non-Standard Cheques has the following settings for a particular business day (T):

1. Starts from the previous business day (T-1) at 12:00.
2. First Cut-off Time (End of Presentment) takes place at 12:00 on the current business day (T). Cheques presented after that time will be assigned automatically to the clearing session of the next business day.
3. Second Cut-off Time (End of Reply) takes place at 15:00 on the current business day

Time	Business Period	Operation
12:00 (T-1)	- Start of day	Presenting Member present Non-Standard cheques for Non-Standard Clearing Session
	- Regular Session for Non-Standard Cheques starts	
		The Clearing House sends the received cheques to the Paying Member to start sending replies from their side
12:00 (T)	- End Presentment of the Non-Standard Clearing Session for Non-Standard Cheques	Any further Non-Standard Cheques received by the Clearing House after this time will be scheduled for clearing on the Non-Standard Clearing Session of the next business day
15:00 (T)	- End Reply of the Non-Standard Clearing Session for the Non-Standard Cheques	End of reply period for the Non-Standard Clearing Session
	- Settlement for Today's Non-Standard Clearing Session	ECC submits the Net Clearing Position for the Non-Standard Clearing Session to the NRB for settlement
15:00 (T)	- End of day reports and reconciliation	

5.2 Outward Clearing for Non-Standard Cheques

Non-standard cheques shall be recognized by the Presenting Member, segregated in a separate batch from the beginning of the outward clearing process and presented through Non-standard clearing sessions.

The Presenting Member has to follow the same steps mentioned in the outward clearing process for the regular cheques. (Refer to **Outward Clearing**)

5.3 Crediting Customer Account

The Presenting Member should credit the customer account after the Settlement for the Nonstandard clearing session takes place in NRB, and not later than 16:00 for the same business day.

5.4 Inward Clearing for Non-Standard Cheques

The Paying Member shall receive the cheques through “Non-standard Cheque Clearing Session” from the Presenting Member.

All Non-standard Cheques (Old Design Cheques) must be verified technically and financially against a specific clearing checklist steps as mentioned in the “**Inward Clearing for Regular Cheques**”.

Once the Paying Member is done with the verification steps, it has to take the final decision; either to approve or to reject the cheque with valid reason(s):

Approval: In this case the paying member shall hold all the responsibilities of accepting the payment of the cheque.

Rejection: Apart from the valid reason(s) mentioned above the paying member may reject the cheque for the following:

1. The Paying Member can reject the cheque with the reason “***Original Cheque is Required***”
2. If the Paying Member has received a Non-Standard Cheque within the regular clearing session or Express Clearing Session, the cheque will be rejected with a return reason “Non-Standard Cheque (Old Design)”.

Clearing of physical cheques will be done outside the system between the related members.

6. HANDLING ADJUSTMENT CLEARING

ECC will allow clearing of adjustment transactions due to wrong claim by members within a defined transaction amount limit and the original transaction not more than 30 days. Such transactions will be processed through a standard adjustment slip (to be arranged by claiming bank) for the amount equivalent to the difference.

6.1 Clearing Session for Adjustment Transaction

Adjustment clearing sessions will be available for all currencies on (T+3) value date concept with two settlements in a week. Any adjustment clearing transaction must be responded before the end of the reply cut-off time; otherwise it will be accepted automatically by the system.

The clearing session configuration for the Adjustment Clearing Session will have following settings for a particular business day (T):

1. Starts from (T) business day at 10:00.
2. First Cut-off time (End of Presentment takes place at 10:00 on the (T+3) business day. Adjustment slip presented after that time will be assigned automatically to the next clearing session.
3. Second Cut-off time (End of Reply) takes place at 11:30 on (T+3) business day.

Time	Business Period	Operation
10:00 (T)	- Start of day	Presenting Member presents adjustment transaction for Adjustment Clearing Session.
		The Clearing House sends the received adjustment transaction to the Paying Member to start sending replies from their side
10:00 (T+3)	- End Presentment of the Adjustment Clearing Session.	Any further adjustment transaction received by the Clearing House after this time will be scheduled for clearing on the next available session
11:30 (T+3)	- End Reply of the Adjustment Clearing Session	End of reply period for the Adjustment Clearing Session

	- Settlement for Adjustment session	ECC submits the Net Clearing Position for the Adjustment Clearing Session to the NRB for settlement
11:30 (T+3)	- End of session reports and reconciliation	

6.2 Outward Clearing for Adjustment Clearing

Adjustment clearing transaction shall be processed using a separate adjustment slip (size of such adjustment slip will be same as that of a standard cheque); details of the adjustment duly filled and uniquely presented by the Presenting Member through Adjustment Clearing Sessions. An appropriate official communication will be mandatory and appended with the adjustment transaction by the presenting bank. ECC System will validate the information against the original transaction (for differential amount), adjustment number (10 digit unique number with bank code and sequence number), already paid, transaction not older than 30 days, transaction limit, etc., before it is forwarded to the paying member.

Sample adjustment slip will be as follows:

Adjustment Number: _____	Date <input type="text"/>
<u>NCHL-ECC Adjustment Transaction</u>	
Pay Bank: _____	Pay Bank Code: _____
Pay Branch: _____	Pay Branch Code: _____
<u>Transaction Details</u>	
Transaction Ref. Number: _____	Communication Ref: _____
Currency: _____	Cheque Amount: _____ Adjustment Amount: _____
Adjustment Amount in Words: _____	

Prepared by: _____	Checked by: _____
Signature: _____	Signature: _____ Stamp: _____

6.3 Inward Clearing for Adjustment Clearing

The Paying Member shall receive the adjustment transaction details and adjustment slip through “Adjustment Clearing Session” from the Presenting Member.

All adjustment transactions must be verified technically and financially against the specific clearing checklist, original transaction and official communication between the members.

Once the Paying Member is done with the verifications, it has to take the final decision; either to approve or to reject the adjustment transaction with valid reason(s):

7. RETURN REASONS

7.1 System Return Reasons

The reasons that will be used by the system to reject a cheque automatically, due to errors or exceptions identified on the cheque.

Code	Return Reason	Penalty Category	Liable Member	Countable
901	Destination Unreachable	Technical	No Liable Party	N
977	Cheque Exceeded Maximum Session Amount	Technical	No Liable Party	N
982	Session Terminated	Technical	No Liable Party	N
985	Cannot Do Outward	Technical	No Liable Party	N
986	Cannot Do Inward	Technical	No Liable Party	N
988	Terminated Member	Technical	No Liable Party	N
989	No Session Available	Technical	No Liable Party	N
991	Duplicate Cheque	Technical	No Liable Party	N
992	Outdated(Staled) Cheque	Technical	Presenting Member	Y
993	Suspended Member	Technical	No Liable Party	N
995	Transaction Time Out	Technical	Paying Member	N
998	Already Paid Cheque	Technical	Presenting Member	N
999	Maximum Cycle Exceeded	Technical	Presenting Member	N

7.2 Paying Member Return Reasons:

The return reasons used by the Paying Member to reply on the rejected cheques. These reasons (technical and financial reasons) are defined by the NRB as follows:

Code	Paying Member Return Reason	Penalty Category	Liabe member	Countable	Re-presentable
1	Insufficient Fund	Financial	Paying Member	Y	Y
2	Payment stopped by court order	Financial	Paying Member	Y	Y
3	Account closed	Financial	Paying Member	Y	
4	Drawer deceased	Technical		Y	Y
5	Endorsement requires banker's confirmation	Technical	Presenting Member	Y	Y
6	Drawer's signature incomplete	Technical	Paying Member	Y	Y
7	Drawer's signature differs	Technical	Paying Member	Y	Y
8	Drawer's signature required	Technical	Presenting Member	Y	Y
9	Alteration in date requires full signature	Technical	Presenting Member	Y	Y
10	Alteration in figures require full signature	Technical	Presenting Member	Y	Y
11	Alteration in words require full signature	Technical	Presenting Member	Y	Y
12	Cheque is mutilated	Technical	Presenting Member	Y	Y
13	Cheque is post-dated	Technical	Presenting Member	Y	Y
14	Cheque is staled	Technical	Presenting	Y	N

			Member		
15	Amounts in words and figures differ	Technical	Presenting Member	Y	Y
16	Incorrect Date	Technical	Presenting Member	Y	Y
17	No advice of draft	Technical	Paying Member	Y	Y
18	Clearing stamp required	Technical	Presenting Member	Y	Y
19	Old clearing stamp to be cancelled	Technical	Presenting Member	Y	Y
20	Bank's endorsement to be cancelled	Technical	Presenting Member	Y	Y
21	Cheque not drawn on us	Technical	Presenting Member	Y	Y
22	Second Signature required	Technical	Paying Member	Y	Y
23	Amount in words required	Technical	Presenting Member	Y	Y
24	Amount in figures required	Technical	Presenting Member	Y	Y
25	Date Required	Technical	Presenting Member	Y	Y
26	Beneficiary Name Required	Technical	Presenting Member	Y	Y
27	Cheque presented with wrong amount	Technical	Presenting Member	Y	Y
28	Alteration in beneficiary name requires signature	Technical	Presenting Member	Y	Y
29	Figure and amount not in the same language	Technical	Presenting Member	Y	Y
30	Account Blocked	Technical	Paying Member	Y	Y

31	Image Not Clear	Technical	Presenting Member	Y	Y
32	Image and Data Mismatch	Technical	Presenting Member	Y	Y
33	Non-Standard Cheque (Old Design Cheque)	Technical	Presenting Member	Y	N
34	Original Cheque is Required	Technical	Presenting Member	Y	N

8. CLEARING HOUSE VALIDATIONS

1. Session is available for required Urgency and currency
2. Cheques is not duplicated
3. Cheque is not outdated
4. Cheque is not already paid
5. Cheque presentment cycle didn't exceed the allowed limit
6. Presenting Member is not suspended
7. Paying Member is not suspended
8. Destination is reachable

9. REPORTS

ECC provides different types of reports to the Clearing House and to all members.

9.1 Clearing House Reports

1. Cheque Query
2. Duplicate Query
3. Session Query
4. Net Clearing Session
5. Fees Reports
6. Penalties Reports
7. Settlement Reports
8. Statistical Reports

9.2 Members Reports

- Cheque Query
- Session Query
- Access Control List Report
- Settlement Reports
- Fees Reports
 - Member Fees Summary Report
 - Branch Fees Summary Report
- Outward Reports
 - Detailed presented cheques
 - Presented cheques by branch
 - Presented cheques by member
 - Detailed honored cheques
 - Honored cheques by branch
 - Honored cheques by member
 - Detailed returned cheques
 - Returned cheques by branch
 - Returned cheques by member
 - Detailed waiting cheques
 - Waiting cheques by branch
 - Waiting cheques by Member
 - Detailed system honored cheques
 - System honored cheques by branch
 - System honored cheques by Member

- Detailed system returned cheques
- System returned cheques by branch
- System returned cheques by Member
- Detailed no session available cheques
- No session available cheques by branch
- Outward Balance
- User performance
- Daily Batches Details

- Inward Reports
 - Detailed received cheques
 - Received cheques by branch
 - Received cheques by member
 - Detailed accepted cheques
 - Accepted cheques by branch
 - Accepted cheques by member
 - Detailed rejected cheques
 - Rejected cheques by branch
 - Rejected cheques by member
 - Detailed pending cheques
 - Pending cheques by branch
 - Pending cheques by member
 - Detailed system accepted cheques
 - System accepted cheques by branch
 - System accepted cheques by member
 - Detailed system rejected cheques
 - System rejected cheques by branch
 - System rejected cheques by member
 - Inward Balance
 - User performance

10.FEES, CHARGES AND PENALTIES

Fees (to be paid to the Clearing House)		
Item	Explanation	Liability
1. Implementation and Setup Fee	Paid once	Member
2. Annual Support Fee	Paid on monthly basis/or annual	Member
3. Regular Clearing Cheque Fee	Paid per cheque presentment	Presenting Member
4. Express Clearing Cheque Fee	Paid per cheque presentment.	Presenting Member
Charges		
Item	Explanation	Liability
1. Delayed submission	Presenting Cheques must be submitted as soon as possible from the deposit time	Presenting Member
2. Session Extension	To extend the Regular session more than the normal time	Requesting Member
3. Last Minute Presentment	The Presenting Member present bulk of cheques 15 minutes before Presentment cut-off time	Presenting Member
4. Returned cheques due to Technical Reasons	See Paying Bank Return Reason	<i>Refer to the Paying Member return Reason and System Return Reason</i>
5. Returned cheques due to Financial Reasons	Insufficient Fund	<i>Refer to the Paying member return Reason and System Return Reason</i>

Penalties		
Item	Explanation	Liability
1. Express Cheques Transaction Timeout	The Express Cheque replied is timeout	Paying Member
2. Delayed Credit	The Presenting Member delayed credit the customer account	Presenting Member
3. Incorrect Return Reason	Paying Member return the cheque for Incorrect reason	Paying Member

11. PKI and Certification Authority

The use of Public Key Infrastructure (PKI) will provide data authenticity, integrity and non-repudiation features, adding the required security to the ECC system. It has been made mandatory for all members to apply digital signature on the cheque image and data. The information shall be encrypted and digitally signed throughout the cheque clearing cycle. The image and data are secured using the PKI during transmission of image/data between the Presenting Member, the Clearing House and subsequently to the Paying Member and vice versa.

NCHL can define and/or change the PKI and Certification Authority process and the forms depending upon the security requirements and streamline/ automate the process. NCHL shall notify the same to all members.

11.1 ECC Certification Authority Architecture

ECC Certification Authority (CA) is a two-tier Certification Authority, with an offline standalone root CA and online sub-ordinate issuer CA that are used for issuing certificates.

The twenty years valid offline root CA will be used to generate a five years certificate for the online sub-ordinate CA (Issuer CA) which will be used to issue certificates for all ECC certification purposes.

11.2 Certificates and Certification Authority Administration

11.2.1 Client Authentication Certificates

This type of certificates will be used to authenticate users that are requesting to login to ECC. The certificate structure should include the username in the “Name” field, Member code for the “Company” field and the value “0” in the “Department” field. While the certificate template for these certificates should be “Client Authentication Certificate”. The validity for this type of certificates is one year.

11.2.2 Server Authentication Certificates

Server authentication certificates will be used to authenticate the web application servers on client machines. This certificate should have the name “*.ecc.com” and the value “1” for the “Department” field. This certificate will be implemented on the SSL off-loader (load balancer) with validity for one year.

11.2.3 Clearing Certificates for Digital Signing

Clearing certificates will be used to digitally sign clearing cheques. This certificate should be generated for all banks and stored in the bank database schema, and the validity for this type of certificates is one year. Clearing certificates will have the member short name as certificate Name and the value (2) in the department field and using the “Client Authentication Certificate” template.

11.2.4 IPSEC Certificates

To apply the router-to-router security and secure the channel between member and Clearing House or between Clearing House main and DR sites on replication line IPSEC should be implemented.

The issuer CA will be used to issue these required certificates that have been requested from the network devices to implement the IPSEC on ECC network.

11.3 Certification Authority Administrator Role

The certification authority administrator responsibility is to install, configure, backup, restore and maintain the Root and sub-ordinate certification authorities, in addition to issuing and managing issued certificates.

11.3.1 Clearing House Administrator Role

Clearing House Administrator will receive the Certificate Issuing Request Form signed by the Member Administrator as to be signed and forwarded the Clearing House technical engineer.

11.3.2 Member Administrator Role

All certificate issuing request and certificate receiving forms should be filled by the member Administrator.

Member Administrator should check his member certificates validity and check for new users' certificates in order to ask for new certificates when needed.

11.4 Filling Certificate Issuing Request Form

Upon issuing a new user certificate or renewal for any current ECC certificate that used by the member, the Member Administrator should pass a signed certificate request form to Clearing House Administrator.

11.5 PKI Requirements

ECC requires a member to obtain either certificate in order to perform the necessary PKI functions within ECC, which are listed in the chart below:

Site	Presenting Members		ECC Host at the Clearing House				Paying Members	
Item	OCS	Gateway/interface (using IPSEC)	Outward		Inward		Gateway/interface (using IPSEC)	ICS
			Outward	Outward Return	Inward	Inward Return		

PKI Operations								
MICR Data	Sign		Sign	Verify Signature	Verify Signature	Sign		Verify Signature
Image & Cheque Data		Encrypt	Encrypt	Decrypt	Decrypt	Encrypt	Decrypt	

The Clearing Certificates are issued for Members' from the Clearing House side to guarantee both data integrity and non-repudiation concepts. Each member - along with the clearing house- is issued a clearing certification, to digitally sign each cheque that is transferred between members through the daily clearing sessions, those certificates and their calculated signatures are submitted to authenticate the information's sender (whether it's a cheque or an acknowledgement of receipt) at the receiver side. The following points brief the clearing certification process:

- All electronic payment information (MICR data) of a cheque to be digitally signed by the Presenting Member
- Each electronic image of a cheque to be digitally signed and encrypted by the Presenting Member
- Once electronic MICR data of cheques are batched, they have to be digitally signed and encrypted by the Presenting Member
- Once images of cheques are batched, they have to be digitally signed by the Presenting Member
- The Clearing House should verify the digital signature of each image outward batch that will be downloaded from the ECC Host and decrypt
- The Clearing House should verify the signature of each image outward batch that will be downloaded from the ECC Host
- The Clearing House should digitally sign and encrypt each Inward Response
- Paying Member should verify the digital signature of MICR data in inward at the item level that was signed by the Presenting Members
- The Paying Member should decrypt and verify the signature of each image in the inward batch that will be downloaded from ECC Host
- Paying Member decrypts the MICR data inward batches and verify the digital signatures

As described, the digital signature information is appended to the cheque information on basis of its status (presented or replied) and can be retrieved by the authorized ECC user. The following snapshot is the digital signature information box that can be viewed by the authorized user:

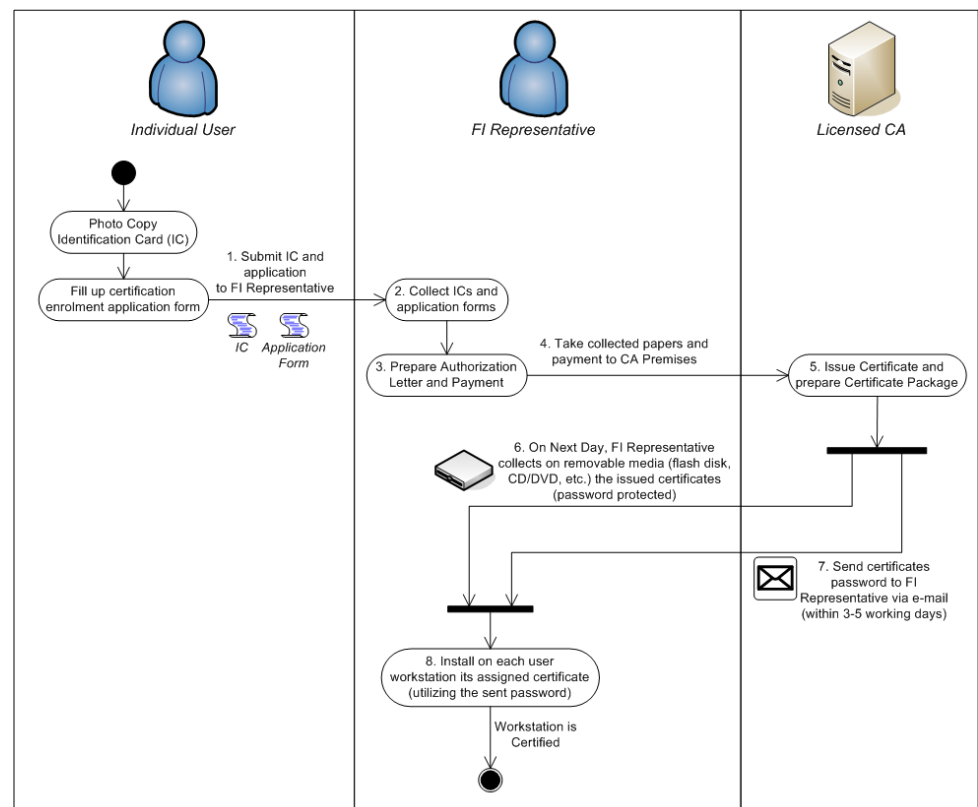


11.6 New Certificate Enrolment

1. Certificate enrolment is the process to obtain a new certificate
2. To ensure the efficiency of the certificate enrolment, each Member needs to have an administrator for certificate management, who will also act as Member Representative.
3. The Member Representative will be the intermediary between the certificate user and the licensed Certificate Authority (CA) to perform requests for issuing or renew certificate.
4. The option to communicate requests to the Licensed CAs, is by the Out of band Method – by walk in, telephone or facsimile.

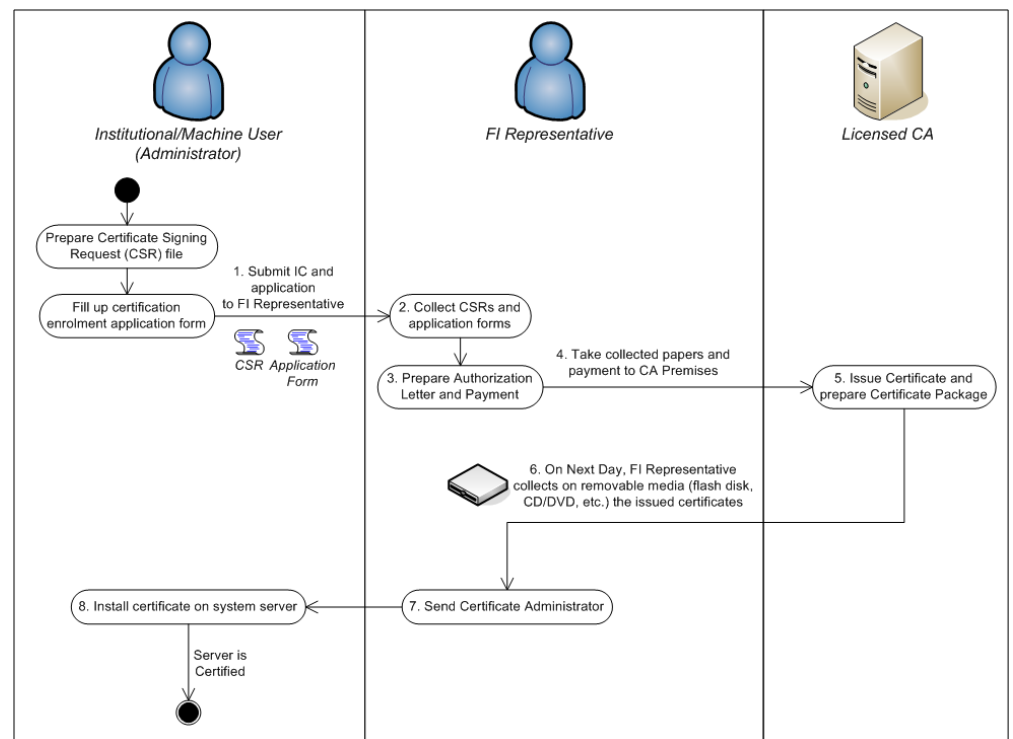
The following sub-sections describe the new certificate enrolment for individual users (workstations) and machine/institutional users (for system digital signatures).

11.6.1 Enrolment for Individual Users



1. User and FI Representative complete application forms and provide Photocopy of IC. For Outsourcing Party, the application form must be countersigned by both the outsourcing party and FI.
2. User sends application form and photocopy of IC to FI Representative.
3. FI Representative prepares and signs the Authorization Letter that contains the list of entitled certificate users for the certificate packages.
4. FI Representative walks in to Licensed CA premises with Authorization Letter, payment slip, application forms and photocopy of ICs.
5. Licensed CA processes the requests by issuing certificates and prepares certificate packages. The certificate package includes the certificate and is password protected.
6. On the next day, FI Representative collects the certificate packages on a removable media.
7. The password for the certificate package is mailed to the User (within 3-5 working days).
8. FI Representative installs each certificate to its associated user's workstation. He will utilize the password e-mailed to the user's inbox to decrypt and install the protected certificate.

11.6.2 Enrolment for Institutional/Machine Users



1. System Administrator and Member Representative complete application forms and provide CSR file. For Outsourcing Party, the application form must be countersigned by both the outsourcing party and Member.
2. Administrator sends application form and CSR file to Member Representative.
3. Member Representative prepares and signs the Authorization Letter that contains the list of CSRs and prepares the certificate packages.

4. Member Representative walks in to Licensed CA premises with Authorization Letter, , application forms and CSR files.
5. Licensed CA processes the requests by issuing certificates and prepares certificate packages. The certificate package includes the certificates.
6. On the next day, Member Representative collects the certificate packages on a removable media.
7. Member Representative sends the certificate to system administrator.
8. System administrator installs certificate on its associated server.

11.7 Certificate Renewal

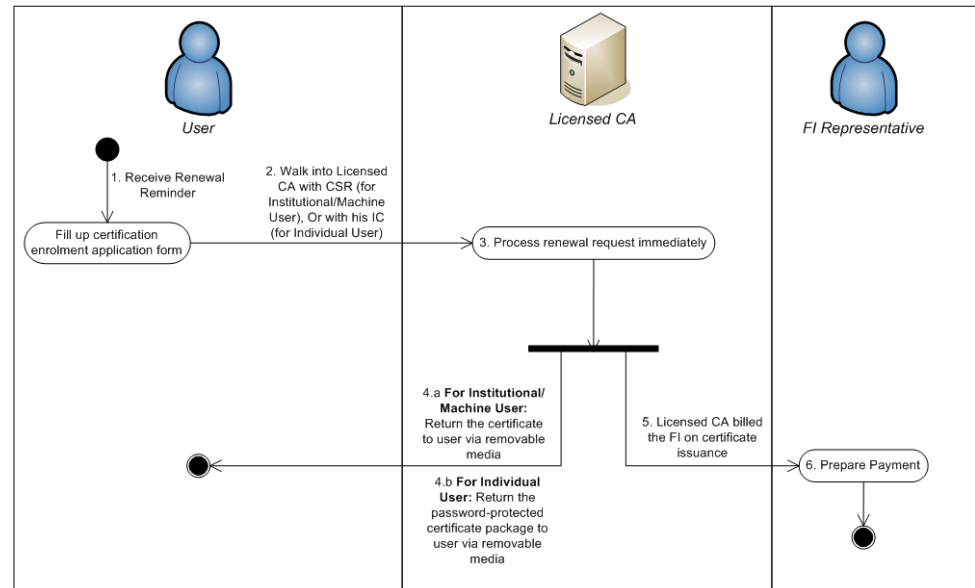
Each certificate has its own validity period. On expiry of the certificate, a certificate user will be notified by email or telephone by the respective CAs.

CA will send the renewal reminders as follows:-

1. 1 month before certificate expires via email directly to user
2. 2 weeks before certificate expires via telephone directly to user

CA will also inform Member Representative of certificates that would expire within one month via email.

Once a user receives the renewal reminder, user needs to immediately renew his certificate. The below diagram illustrates the renewal process



1. User receives renewal reminder.
2. User walks into the Licensed CA premises with Identification Card (IC) **-for individual user-**, or CSR **-for Institutional/Machine User**. User completes certificate renewal form.
3. Licensed CA processes the renewal requests immediately.
4. After processing the renewal requests, Licensed CA will
 - a. **For Institutional/ Machine User:** Return the certificate to user via removable media

- b. **For Individual User:** Return the password-protected certificate package to user via removable media
5. Licensed CA bills the Member on certificate issuance

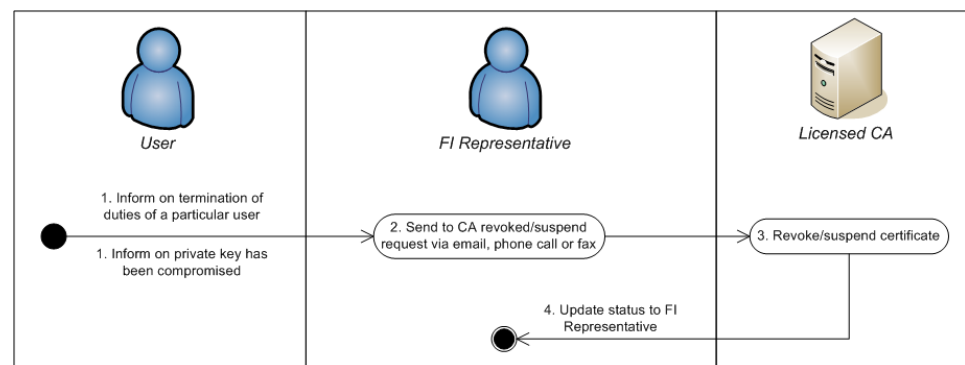
Notes:

The validity of the renewed certificate commences from the day the certificate is issued and the validity period of the new certificate can be extended by including the remaining valid days in the expiring certificate.

11.8 Certificate Revocation/Suspension

1. In the event of job termination, or private key being compromised, the user or his/her superior must immediately report to the Member Representative.
2. Member Representative may revoke/suspend certificate on behalf of user via email or telephone/ fax.

The below diagram illustrates the certificate revocation/suspension process



1. Member representative requests to revoke/suspend via telephone fax or send signed email. Member representative must fax the signed Authorization Letter as supporting document if he/she requests revocation by phone.
2. Licensed CA revokes/suspends the certificate on behalf of the user and informs Member Representative on the revocation/suspension status.

Notes:

1. CA will publish the Certificate Revocation List (CRLs) every one (1) hour.
2. The Licensed CA is also responsible to suspend the public key, which resides in the certificate.

For certificate suspension, CA will add the revoked certificate into the CRL. If the suspension status confirms that the certificate has not been compromised. CA will remove the certificate serial number from the CRL. However, if the certificate is suspended for more than (forty eight) 48 hours, the certificate will be immediately revoked.

12.APPENDIX

12.1 Responsibility Matrix

Operational Details	Presenting Member	Paying Member	Clearing House	Central Bank	PS-ECC System
A Technical / Design					
1 New design (standard) compliance	Visual verification of physical cheque	-	-	-	-
2 Paper weight and quality	Paper touch and feel	-	-	-	-
3 Ultraviolet paper dullness	Visual inspection using UV light	-	-	-	-
4 Microprint text	Visual inspection using magnifying	-	-	-	-
5 Ultraviolet	Visual inspection using UV light	-	-	-	-
6 Paper Watermark	Visual inspection using back light	-	-	-	-
B Technical / Requirements					
1 Presence of cheque date	Visual verification	-	-	-	-

2	Presence of amount in figures	Visual verification	-	-	-	-
3	Presence of amount in words	Visual verification	-	-	-	-
4	Matching of figure and word amounts	Visual verification	-	-	-	-
5	Presence of beneficiary name	Visual verification	-	-	-	-
6	Presence of Signature	Visual verification	-	-	-	-
7	Alteration with signature	Visual verification	-	-	-	-
8	Cheque is not mutilated	Visual verification	-	-	-	-
9	Clearing stamp	Stamping cheque	Visual verification of back image	-	-	-
10	Cancellation of previous stamp	Stamp cancelation	Visual verification of back image	-	-	-
11	Cheque is not postdated	-	-	-	-	System will auto release postdated cheque on its due date
12	cheque Tampered with	Visual verification	-	-	-	-
C Financial						
1	Sufficiency of fund	-	Verify using banking system	-	-	-

2	Account is not closed	-	Verify using banking system	-	-	-
3	Cheque payment is not stopped	-	Verify using banking system	-	-	-
D Operational / Outward						
1	Present Regular Cheque on the same day	If deposited before cut-of time	-	-	-	-
2	Collect Express Cheque processing fee	When cheque status changes to Waiting	-	-	-	-
3	Credit customer account after regular session closure	Not later than 16:00PM	-	-	-	-
4	Credit customer account within 20 minutes of receiving express reply	If cheque is accepted	-	-	-	-
5	Printing Deposit slip	showing date and time and Teller	-	-	-	-
6	Submit the cheque to the Clearing House	must submit as soon as possible from deposit time	-	-	-	-
7	Printing Cheque Return Advice	showing return reason	-	-	-	-
8	Storage of Physical Cheques	safe keeping for 7 years	-	-	-	-
10	Availing Physical evidence	within 6 working days of official request	-	-	-	-
E Presentment						
1	Session is available for required urgency and currency	-	-	-	-	Auto reject "No session available"

2	Cheque is not duplicate	-	-	-	-	Auto reject "Duplicate cheque"
3	Cheque is not outdated	-	-	-	-	Auto reject "Outdated"
4	Cheque is not already accepted	-	-	-	-	Auto reject "Already Paid"
5	Cheque cycle did not exceed allowed number of presentment	-	-	-	-	Auto reject "max cycle exceeded"
6	Cheque is not re-presented by different BFD	-	-	-	-	Auto reject "Different BFD"
7	Cheque is not re-presented during the same session	-	-	-	-	Auto reject "same session re-presentment"
8	Cheque Limit is not exceeded	-	-	-	-	Auto reject "cheque limit exceeded"
9	Presenting Member is not suspended	-	-	-	-	Auto reject "suspended member"
10	Paying Member is not suspended	-	-	-	-	Auto reject "suspended member"
F Inward						
1	Reply to all received regular cheques	-	must reply before 15:00PM	-	-	Auto accept un-replied cheques
2	Reply to all received express cheques	-	must reply within 30 min of reception	-	-	Auto reject un-replied cheques
3	Cheques are drawn on us	-	Verify visually	-	-	-

4	Matching Image and associated data	-	Verify visually	-	-	-
5	Signature matching	-	Comparing cheque signature with reference signature	-	-	-
G Session						
1	Session periods	-	-	Configure session schedule	Define session periods and cutoffs	-
2	Working calendar	-	-	Configure system calendar	Define working days and holidays	-
3	Sudden Holiday	-	-	Configure sudden holiday	-	Auto extend all regular session till next business day and notify members
4	System currencies	-	-	Configure system currencies	Define allowed clearing currencies	-
5	System urgencies	-	-	Configure system urgencies	Define allowed clearing urgencies	-
6	Session Extension	-	Submit request 60min before session cutoff	Configure session extension	Approve or reject 30min before session cutoff	Notify members
7	Session Termination	-	-	Configure terminated session and generate NCP file	Approve or reject 30min before session cutoff	Notify members
8	Session Settlement	-	-	Generate session NCP file and submit for settlement	Receive NCP and process it	-

9	Session Limit exceeded	-	-	Configure session limit	-	Notify members
10	Member suspension/Termination/Resumption	-	-	-	Configure new member status	-
H Infrastructure						
1	System is up and in good health	-	-	Perform daily check routine	-	-
2	Data replication	-	-	Verify replication process	-	-
3	Data archiving	-	-	Verify archiving process	-	-
4	DRC availability	-	-	Perform periodical switch over	-	-
5	COB availability	-	-	Perform periodic check	-	-
6	Issuance of user login Certificates	-	-	Issue and send user login certificate within one business day	-	-
7	Renewal of members clearing certificates	-	-	one month before old certificate expiration	-	-
I Arbitration						

1	Customer Complains	-	-	Receive from members and investigate customer claim	-	-
2	Legal Evidence	-	-	Receive and entertain NRB request	Receive and forward court request	-

			10:00 AM	11:00 AM	12:00 PM	13:00 PM	14:00 PM	15:00 PM	15:30 PM	
* Regular Session starting from 14:00 noon T-1			Presentment / Reply						Reply	Settlement
Presenting	Customer presents a regular cheque at the counter	10:15 AM	◆							
	Outward officer verifies cheque and accepts customer deposit	10:17 AM	◆							
	Outward officer scans the cheque and prints deposit advice	10:19 AM	◆							
	Outward supervisor checks the scanned image and entered data	10:19 AM - 10:30 AM	■							
	PS-ECC submits the cheque into today's regular session	10:30 AM	◆							
Paying	Technical officer verifies the signatures against customer reference	10:35 AM - 11:00 AM	■							
	Financial officer verifies account status and sufficiency of funds	11:00 AM - 11:15 AM	■							
	Inward supervisor verifies and approves cheque payment	11:15 AM - 11:40 AM	■							
	PS-ECC submits the reply to the clearing house	0.486111	◆							
Clearing House	PS-ECC closes the session and auto accept un-replied cheques	15:00PM						◆		
	PS-ECC generates NCP for settlement	15:10 PM						◆		
	PS-ECC sends settlement notifications to all participants	15:30 PM						◆		
Presenting	Outward officer prints returned cheques advices and attache it with original cheque	15:30 PM - 16:00 PM							■	
	Outward officer credits the customer account	16:00 PM -							■	

Must be presented as soon as possible from customer

Must be replied before session closure at 15:00PM

Must credit customer account before 16:00PM

