



Central Bank of Oman

CHEQUE IMAGING SYSTEM

OPERATING RULES FOR PARTICIPANTS

Version 1.4

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Foreword

Central Bank of Oman (referred to as “CBO” or “the Central Bank”) in its capacity as the central banking authority and regulator in the Sultanate of Oman and in accordance with the powers vested in it by the Banking Law issued by Royal Decree 114 of 2000 to regulate banking business hereby promulgates the following rules to govern the Cheque Imaging System (CIS) in the Sultanate of Oman.

VERSION CONTROL

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Rule 1 – General Provisions

1.1 General

Refer to the Appendix I of this Operating Rules document.

1.2 Cheque Imaging System

Cheque Imaging System, herein referred to ‘CIS’ in this document, is a state-of-the-art electronic platform provided to its participants for presenting cheques as presenting banks, herein after referred to as ‘Bank of First Deposit’ (BFD), for payment to the paying banks, herein after referred to as ‘Pay Bank’ via the use of electronically captured cheque images and data. The Pay Bank processes the cheques for payment as per relevant laws and practices and communicates the result to BFD. The CIS performs automatic clearing of the amounts comprised in the paid and returned/rejected cheque images and data among the participants. The system significantly reduces the clearing cycle time for physical cheques. It aims at promoting efficiency, security and cost saving for the use of cheques as a secure payment instrument in the Sultanate of Oman.

1.3 Objective

The CIS system is intended to contribute to the efficient operation of the financial system in the Sultanate of Oman. The system is expected to increase security of payment processing, reduce associated risks, and to promote efficiency in terms of speed, cost and robustness.

1.4 Membership

Membership of the CIS shall be mandatory to all commercial banks operating in the Sultanate of Oman, or any other specialized banks as approved/directed by the Central Bank. Membership may be granted to entities (other than those for whom the membership is compulsory) as per the procedure laid down in Rule 2.2 below.

1.5 Ownership and Licensing

The CIS system is operated by the Central Bank which licenses the Participants to use the CIS System strictly in accordance with the terms and conditions of the Membership Agreement and these Operating Rules. The Central Bank is empowered to regulate the operations and usage of the CIS as it deems fit.



1.6 Operating Rules

These rules shall govern the operations and the use of the CIS as well as the roles and responsibilities of the Participants and the Central Bank.

1.7 Amendments to the Operating Rules

These operating rules can be amended when deemed necessary, in consultation with and with the consent of the Central Bank and the Operation Sub-Committee of the Payment Strategy Committee.

Payment Systems Department of the Central Bank shall be responsible for implementing the amendments to the Rules upon authorization from the Central Bank.

1.8 Usage of CIS

1.8.1 Compliance

All Participants and the Central Bank shall comply with these Operating Rules.

1.8.2 CIS Utility

Without prejudice to any laws of the Sultanate of Oman, all Participants shall use CIS for effecting clearing of inter-bank cheque payments in Rial Omani. The CIS system is designed with business continuity plan capable of coping with all different scenarios of failure of any part of components. Participants should refer to Rule 21 for the relevant procedure to follow under each scenario of hardware, software or network failure.

1.8.3 Current Inter-bank Agreements

Any current Inter-bank agreements relating to Payments, such as the Clearing House Rules, Repurchase Facility, etc. shall continue to remain in force except to the extent that they are in conflict with these operating rules.



2. RULE 2 - PARTICIPANT ACCESS

2.1 Participant Types

CIS supports the following types of participation:

2.1.1 *Direct Participant*

Direct Participant (DP) is the Participant who owns a commercial banking license in Oman and currently operating cheque accounts for their customers. The DP issues cheques to their customers for use as payment instrument drawn on the customers account. It also collects payments for cheques deposited by their customers from other participants. Further it maintains a settlement account with Central Bank for inter-bank settlements.

2.1.2 *Indirect Participant*

Indirect Participant (IP) is a participant which uses a designated direct participant's settlement account for settlement of net clearing amounts.

The IP receives cheques as BFD from their customers, but will not require to receive cheques as Pay Bank as it does not issue cheques to customers. The IP has a direct communication link with CIS for outward clearing function.

2.1.3 *Sub participant*

Sub Participant (SP) is a participant without settlement account with Central Bank and without communication link to CIS. Usually, customers of a DP, with high volume of cheques for presentment through the DP, qualify under this type.

A SP shall be required to establish contractual agreement with a DP with a settlement account. The agreement should define that the DP agrees to act as a settlement agent for the SP for the settlement of the SP cheque payments. The agreement should provide legal authority for CBO to debit or credit to the DP settlement account in accordance to the SP cheque clearing position in CIS.

In the initial period of CIS Production operations, only direct participants and indirect participants shall be allowed. CBO shall advise via circular if the other participant type will be supported in future.



2.2 Participants Membership

2.2.1 *Initial Member*

The Central Bank, all licensed commercial banks and selected specialized banks in Oman are initial Participants in CIS. The list of these participants is as indicated in Appendix IV.

2.2.2 *Admission of New Members*

The Central Bank may authorize the admission of new participant in CIS provided that the Central Bank in its sole discretion deems that the new participant meets its qualifying criteria and executes the related membership agreement.

2.2.3 *Prerequisites for the Participants*

All direct and indirect/sub participants shall have relevant systems, procedures and trained staff complement, meeting the criteria set by the Central Bank from time to time for participation in CIS. The Central Bank shall additionally monitor the continued maintenance of the specified criteria from time to time and Participants shall permit access to their operations and facilities to the Central Bank for the purpose of such monitoring. Participants shall endeavor to keep their systems updated and in synchronization with the Central Bank's criteria.

2.2.4 *Participant Branch Registration*

A DP and IP may nominate selected bank branches of the Participant to be granted access to CIS. Participant must submit formal request to the Central Bank (refer to the CBO contact) for the nomination. The Central Bank reserves the right to approve or disapprove the registration of Participant's branch as CIS branch.

2.2.5 *Suspension/Expulsion*

The Central Bank shall have the sole discretion to suspend or expel a Participant temporarily or permanently if it deems in its sole opinion that the Participant has ceased to meet the qualifying criteria prescribed by it from time to time, or if the Participant is declared insolvent or its banking license is revoked by the Central Bank, or the Participant has breached any of the terms of agreement or the Participant fails to comply with the these operating rules or any other reason deemed appropriate by the Central Bank.

2.2.6 *Participants' Withdrawal*

A Participant may opt to withdraw from CIS by giving a formal 60 days advance written notice to the Central Bank and the Central Bank providing its consent for the withdrawal



request. The Central Bank shall as appropriate direct the concerned Participant to surrender its rights, systems, software and any other material that relates to CIS. The Participant shall comply with these directions.

2.2.6 Obligations on cessation of membership

In the event, a Participant has been suspended or expelled or has withdrawn from CIS, any cheque presented by that participant and presented on that participant after suspension will be rejected, with reason "bank is suspended". However, the cessation of the membership shall not absolve the Participant of any liability for effecting those payments to the concerned parties. The Participant shall also continue to remain liable for all its accrued and accruing obligations under these operating rules.

2.2.7 Revocation of Suspension

The Central Bank may in its sole discretion decide to revoke the suspension of the Participant. In such case the Central Bank shall send a notice to that effect to all the remaining Participants

2.2.8 Notice period for suspension, expulsion, withdrawal and revocation.

- a) The Central Bank shall notify the Participant being expelled or suspended by sending a communication to that effect electronically or by fax or a letter addressed to the Senior Management of the Participant immediately. The notice shall be deemed delivered as soon as the electronic message is released or the fax is transmitted or the letter delivered at the counter of the participant. The other participants shall be advised about the suspension through a communication in similar manner immediately.
- b) The Central Bank shall notify all other participants about the withdrawal by a member by giving 7 days advance notice.
- c) The Central Bank shall notify other participants about the re-admission of a suspended or temporarily withdrawn Participant as soon as possible by sending a communication to that effect.

2.3 Participant Identification

Each participant shall be represented on the CIS System with a unique identification bank number. CIS shall register following additional information for participant identification purposes.

2.3.1 Participants Registration



CIS direct, indirect, or sub-participant, on admission, shall furnish the following information for identification purpose at the system level:

#	Parameter	Details
1	Participant's name	Name of participant
2	Address	For possible paper mail
3	Legal address	Headquarters address of the participant
4	Telephone	Telephone number of the representative of the participant
5	Fax	Fax number of the representative of the participant
6	E-Mail	Electronic address of the representative of the participant
7	Country	Country name

2.3 Responsibility of Direct and Indirect Participants

2.4.1 Requirement for Participants Accounts

All Direct and Indirect Participants of CIS, by virtue of being CIS members shall either own a Settlement Account in RTGS; or have established legal agreement with another direct Participant who owns Settlement Account in RTGS to act as their settlement agent for cheque payments settlement. The conditions stipulated by the Central Bank from time to time shall apply for operation of the Settlement Account.

2.4.2 Direct Participant's Responsibility for maintaining sufficient liquidity

The Direct Participants shall ensure that they are maintaining sufficient balances in their RTGS settlement accounts for effecting payments generated by their own clearing settlement debit as well as of those indirect participants and sub-participants for whom they are acting as settlement agents. It is the responsibility of each Participant to monitor their accounts for the purpose of maintaining liquidity.

2.4.3 Settlement arrangements for Indirect & Sub-Participants

Indirect Participant or Sub-Participant who does not own a Settlement Account in CBO RTGS system, must appoint one of the Direct Participants as their cheque payment settlement agent. The Indirect or Sub Participants must have established the appropriate legal agreement with the designated Direct Participant. The Direct Participant is responsible for completion of settlement on behalf of the Indirect or Sub Participants by maintaining adequate funds in the settlement account.

2.4.4 Central Bank access to information on Clearing Transactions

The Central Bank in its role as regulator and operator of CIS shall have full access and authority to generate transactions and access information on Participants accounts. The



Central Bank shall however have no responsibility for monitoring accounts of the Participants.

2.4.5 The Central Bank as a Participant

The provisions of section 2.4.2 above shall not apply to the Central Bank in its capacity as a Participant.



3. RULE 3 – PARTICIPANT CONNECTIVITY

3.1 CIS ASP System Architecture

The CBO CIS operates on an Application Service Provider (ASP) system architecture for providing its services to the participants. All the application systems and database components of all participants are centrally installed in the CIS data centers (located at the main site and backup site) of CBO. The CIS central node application systems are fully web-enabled. Participants are required to access the ASP servers via web browser thin clients, for performing CIS functions and accessing information of their own CIS databases.

All direct and indirect/sub participants shall set up and maintain a participant platform which comprises PC workstations, cheque scanners and printers for connecting to the ASP system. The participant platform, connectivity and network requirements specified in this behalf are as under:

3.2 Participant Workstations, Scanner and Printers for CIS

The Participant shall install the following equipment at their premises for performing CIS functions:

3.2.1 CIS workstations

The CIS workstation must meet the following specifications:

Client Workstation	
Features	Description
Processor	Intel Pentium III 500 MHz or better
Cache	512 KB
Memory	512 MB
Floppy disk	1.44 MB disk drive
CD-ROM	48x CD-ROM
Hard Disk	IDE with at least 5 GB free disk space
Mouse	2 or 3 button mouse
Video	AGP 4x with 8 MB
Monitor	15 inch, non interlaced, supporting 1024 * 768 resolution
Network	Ethernet card 10/100 Mbps supporting TCP/IP
Operating system	Windows XP Professional Edition with SP2
Web browser	Microsoft Internet Explorer (IE) 6.0 or later



3.2.2 CIS Cheque Scanner

The CIS cheque scanner must meet the following specifications:

Cheques Scanner	
<i>Features</i>	<i>Descriptions</i>
Imaging Camera	Front and Rear Imaging Camera
Resolution	200 dpi resolution at 256 shades of grey
Document Feeding	Single and automatic document feeding (up to 20 to 100 document capacity depends on work volume) with double feeding detection
Document entrance	Linear side entrance
Collecting Bins	One or two collecting bins for processed documents with a collecting bin sensor
MICR Reading	MICR E13B reading head
Interface	SCSI II or USB
Paper Length	150-255 mm
Paper Height	60-108 mm
Paper Thickness	0.07-0.10 mm
Paper Weight	70-110 grams per square meter
Transport Speed	500 mm./sec
Throughput	At least 20 documents per minute

The list of supported scanner is in the Appendix VI. Participant should inform CBO to perform certification of scanner not in the above list.

3.2.3 CIS printers

The participant CIS printers must meet the following specifications:

Participant Printer	
<i>Features</i>	<i>Descriptions</i>
Speed	At least 10 PPM
Resolution	600 dpi
Language	HP PCL5 and HP PCL6
Media Capacity	At least 100 sheets
Media Size	Letter, legal, A4, A5 and executives
Memory	At least 4 MB
Duplex Printing	Optional



Network Interface	Optional
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3.3 Participant Head Office Connectivity

Each participant shall establish a communication link between their head offices and the CIS ASP system. The CBO National Payment System network, ‘Banknet’, shall be used as the telecommunication network to provide the communication link. The Banknet is a redundant network and provide primary communication links and backup communication links to the CBO main data centre and backup data centre respectively. The participants shall connect their CIS platform, which comprise workstations, scanners and printers, via communication links to CIS ASP system.

3.4 Participant’s CIS Branch Connectivity

Each participant may nominate one or more of their bank branches to be granted access to CIS by CBO. The participant shall be responsible to establish network connections between their head office and their nominated CIS branches for accessing CIS functions.

To do so, the participant must be responsible for performing the following:

- Inform CBO of the location of branches, number and name of users using CIS,
- Set up the participant internal network between the branch and the participant’s CIS head office. The participant is responsible to ensure that there is adequate bandwidth for this network path to carry the data traffic for the CIS function used by the branch.
- Inform CBO of the existing list of branches and any new branch opening. CBO shall be required to maintain the branch codes of all participants’ bank branches in CIS bank branches database.

3.5 Communication Bandwidth

The participant shall ensure that there is sufficient communication bandwidth allocated to the CIS communication links at their head office and their CIS branches. The minimum communication bandwidth for each web browser session is **64 Kbps**. Therefore, the connectivity bandwidth required for participants depends on the number of simultaneous participant users’ web browser sessions working on the system.

For CIS branch to connect to their head offices and to access the ASP system via web browser, the bandwidth (BW) between the branch and the participant’s head office for CIS is the following:

$$\text{Branch BW} = 64\text{Kbps} * N; \quad N \text{ is number of branch’s simultaneous CIS users}$$



For head office connectivity to the ASP system at CBO data center, the bandwidth required is presented in following equation:

$$\text{Headoffice BW} = 64\text{Kbps} * N + \text{TBW};$$

N is number of concurrent users at headoffice, and TBW is sum of all branches BW which implement CIS.



4. RULE 4 - SYSTEM OPERATIONS

4.1 Role of CBO

CBO Payment Systems Department (PSD) shall conduct the daily operations of the central CIS ASP system. The daily operations of the central system provides the following business process:

- Receives cheques from BFD for outward clearing
- Dispatch cheques to respective Pay Bank for inward clearing
- Receives replied cheques and returned/rejected cheques from Pay Bank
- Dispatch replied cheques and returned/rejected cheques to BFD
- Generate the net settlement for all outward/inward and returned/rejected cheques and complete settlement in RTGS through DPs' settlement accounts
- Perform end of session settlement for each session of the current business day
- Start CIS session for the next business day

The CBO PSD shall have the authority for performing system administration to manage the system security, system parameters, bank administration and user administration.

4.2 Clearing Sessions

Cheques are cleared within individual clearing sessions in CIS daily operations.

Each CIS clearing session shall be defined with the following parameters:

- **Clearing Date** – the business day on which cheque clearing shall be completed.
- **Currency** defines the cheques of specified currency which will be cleared within the clearing session.
- **Session Start** – the time within a business day when the session starts
- **Session End** – the time within a business day when the session ends



- **First Cutoff Time (Reply Cutoff time)** – the time when all cheques within the clearing session must be replied by the Pay Banks
- **Second Cutoff time (Return Cutoff Time)** - the time when any returned cheques must be submitted by the Pay Banks to CBO for returning to the BFD.
- **Urgency level** – CIS shall support the following urgency levels:
 - **Regular Urgency:** for regular cheques clearing
 - **Special Clearing Urgency:** for clearing of time critical or high value cheques which require immediate reply from Pay Bank. Its reply period is one hour.

CBO reserves the right to define any additional urgency levels in future.

CBO shall perform the session configuration to define the start and end times of each session for each business day.

4.2.1 *Regular Clearing Session*

This session configuration will handle regular clearing items. It shall have the following settings for a particular clearing day:

- Starts at 12:00 pm previous business day,
- First cut-off (end of presentment) will be at 12:00 pm on the clearing day (cheques presented after that time will be assigned the session date of the next day).
- Second cut-off (end of reply) will be at 1:30 pm on the clearing day

CBO reserves the right to adjust the actual start time/end time of each session on any business day. Under such situation, CBO shall advise all participants in advance via system notification or broadcast messages.

4.2.2 *Special Clearing Sessions*

Special clearing schedule must be during business hours and completed before end of first cut off time of regular clearing. Any presented cheque under special clearing must be responded within one hour otherwise it will be returned by the system with reason "time out".

The determination of presenting a cheque with special clearing urgency shall be governed by the following:



- Special clearing should be used for time critical cheques. The determination of cheques for special clearing is responsibility of BFD, based on request from their customers. The CIS may apply a higher processing fee for special clearing cheque.
- The CIS shall also implement a threshold amount limit such that for a cheque of which the cheque value exceeds the threshold limit, the system shall automatically convert it to special clearing urgency. This is performed to enforce a risk mitigation for settlement of an exceptional high value cheque.

The CIS session configuration shall define the special clearing sessions on a clearing day as per the following:

1. Special Clearing Session 1: it shall have the following settings:
 - a. Starts at 8:30 am
 - b. First cut-off (end of presentment) is at 9:30 am
 - c. Second cut-off (end of reply) is at 10:30 am
2. Special Clearing Session 2: it shall have the following settings:
 - a. Starts at 9:30 am
 - b. First cut-off (end of presentment) is at 10:30 am
 - c. Second cut-off (end of reply) is at 11:30 am
3. Special Clearing Session 3: it shall have the following settings:
 - a. Starts at 10:30 am
 - b. First cut-off (end of presentment) is at 12:00 am
 - c. Second cut-off (end of reply) is at 01:00 pm

CBO reserves the right to adjust the actual start time/end time of each session on any business day. CBO may also modify the number of special clearing sessions within a business day for operational reason. Under such situations, CBO shall advise all participants in advance via system notification or broadcast messages.

4.3 Cheque Clearing Cycle

Cheque Clearing Cycle defines all the stages and elapsed time required for a cheque to be processed until the full cheque clearing process is completed. The Cheque Clearing Cycle based on cheque imaging consists of the following stages:

- a) Clearing cycle starts at the outward clearing at BFD
- b) Presenting cheques from BFD to CBO CIS for routing to Pay Bank



- c) Inward clearing at Pay Bank
- d) Reply from Pay Bank sent to BFD (via CIS) to confirm payment of cheque, or to reject cheque payment
- e) Clearing cycle ends when CIS has submitted settlement transaction for those replied confirmed cheques to RTGS for settlement amongst all BFD and Pay Banks.

CBO requires that the CIS daily operations should achieve a '**D+0**' Clearing Cycle. This means that the elapsed time from the start to the end of the above Clearing Cycle shall be completed within the **same business day** for the clearing date.

'**D+0**' is a CIS operational policy which refers to the processing cycle from, when participants send their outward cheque images to CBO CIS Clearing House, and CBO CIS completes clearing within the same day which include sending replies/reject from Pay Bank and performing settlement at the end of session. However, the workflow and processing time for a Bank of First Deposit (BFD) participant from receiving a customer's deposited cheque at its head office or branch, to the submission of the respective cheque image to CBO CIS Clearing House, is the responsibility of participant banks

The participants are required to comply with the **D+0** Clearing Cycle. Clearing schedule for regular cheques will include two main cut off times. Participants as BFD shall be required to present all their cheques which are valued on the current business date **BEFORE** the first cut off time of the last clearing session of the current day. Any cheques presented after the first cut off time shall only be cleared on the D+1 date (next business date).

Second cut off time will define the maximum allowable time for participant as Pay Bank to respond to all received cheques which they receive prior to the first cutoff time. Participants as Pay Bank shall be required to reply to all these received cheques before the second cutoff time of the last clearing session of the current day. Any cheques received by Pay Bank after the first cut off time shall be processed on the D+1 date (next business date).

For customers' cheques deposited at a non-CIS branch of the BFD participant (i.e. the branch is not equipped with CIS workstation and scanner), the participant should prepare a timetable for delivering the physical cheques to either its head office or a CIS branches for the outward clearing and sending to CBO CIS. If the non-CIS branch is located at far distance from the head office or CIS branches, the participant is allowed to deliver the cheques at the end of the day so that the head office/CIS branch receives it on the next day before the first cutoff time. The BFD head office/CIS branch should then process the non-CIS branch cheque and finish clearing within the next day period. Cheque deposited at a non-CIS branch shall at most be cleared by the end of the next day i.e. D+1 day.

CBO encourages all participants to make the best endeavor to provide the shortest processing time for cheques deposited by their customers at a non-CIS branch. Participants should



categorize the non-CIS branches according to their locations (from HO/CIS branch) and operational resources. Accordingly participants may provide same day cheque clearing service, if possible, for non-CIS branches which have a close proximity to HO/CIS branch. Participants may provide D+1 cheque clearing services for other non-CIS branches where workflow and transportation of physical cheques take time.

4.4 CIS Business Calendar

The Central Bank shall prepare the business calendar for each year, which declares the working days and non-working days of CIS. The Central Bank shall also update the calendar in the event of any unscheduled ‘sudden’ bank holidays occurring (Central Bank will make the best effort to declare and update the system calendar before the ‘sudden’ holiday starts. All private sector banking days shall be the CIS working days unless the Central Bank issues a circular to the contrary. The date format in CIS shall follow the Gregorian calendar.

4.5 Normal Business Hours Timetable

The business operating hours of CIS, on every normal business day of every week which starts from Sunday to Thursday, are as indicated in the following timetable:

Time	CIS Daily Business Period	Remark
08:30am	<ul style="list-style-type: none">• Start of day• Regular Clearing Session starts• 1st Special Clearing Session starts	BFDs present cheques for regular and special clearing urgencies. CBO send them to Pay Banks. Pay Banks start sending reply or return of cheques.
09:30m	<ul style="list-style-type: none">• End presentment for 1st Special Clearing session.• 2nd Special Clearing session starts.	End of presentment of special clearing cheques for the 1 st special clearing session. Any further special clearing cheque received by CBO will be scheduled for clearing in the 2 nd special clearing session.
10:30am	<ul style="list-style-type: none">• End reply for 1st Special clearing session.• <i>Settlement of 1st special clearing session.</i>	End of reply/return period for the 1 st special clearing session. CIS submits net clearing position for 1 st special clearing to RTGS for settlement.



Time	CIS Daily Business Period	Remark
	<ul style="list-style-type: none">• End presentment for 2nd Special Clearing session.• 3rd Special Clearing session starts.	End of presentment of special clearing cheques for the 2 nd special clearing session. Any further special clearing cheque received by CBO will be scheduled for clearing in the 3 rd special clearing session.
11:30am	<ul style="list-style-type: none">• End reply for 2nd Special clearing session.• <i>Settlement of 2nd special clearing session.</i>	End of reply/return period for the 2 nd special clearing session. CIS submits net clearing position for 2 nd special clearing to RTGS for settlement.
12:00pm	<ul style="list-style-type: none">• End presentment for Today's regular clearing session.• End presentment for 3rd Special Clearing session.• Regular Clearing for 'Next' business day starts	Any further regular clearing cheques received by CBO after this time will be scheduled for clearing in next day regular clearing session.
01:00pm	<ul style="list-style-type: none">• End reply for 3rd Special clearing session.• <i>Settlement of 3rd special clearing session.</i>	End of reply/return period for the 3 rd special clearing session. CIS submits net clearing position for 3 rd special clearing to RTGS for settlement.
1:30pm	<ul style="list-style-type: none">• End reply for Today's regular clearing session.• Settlement of Today's regular clearing cheques	End of reply/return period for all today's regular cheques. CIS submits Net Clearing Position for today's regular clearing to RTGS for settlement.
2:00pm	<ul style="list-style-type: none">• End of day reports and reconciliation.	-
2:30pm	<ul style="list-style-type: none">• CBO performs database backup and archive	-



Time	CIS Daily Business Period	Remark
3:00pm	<ul style="list-style-type: none">End of today's business day	-

The Central Bank reserves the right to alter the start, end time of each business period depending on the operating environment. The Central Bank shall communicate by a circular, broadcast or equivalent communication means if there is a change in the business hours for a specific date.

4.6 End of Session Cheque Reply

4.6.1 Regular Cheques not replied at end of day

The CIS shall adopt the 'auto-accept' configuration for regular urgency cheques not replied by Pay Banks at the end of regular clearing session (also called 'time out cheques'). In 'auto-accept' configuration, all non-replied cheques will be treated as confirmed to be paid by Pay Banks. All participants are required to make their best effort to process inward cheques and reply them within the same clearing session, in order to complete a same day (D+0) clearing cycle.

4.6.2 Special Clearing Cheques not replied within one hour of presentment or at end of Session

The CIS shall automatically reject any special clearing cheques, which are not replied by the Pay Banks within one hour of presentment or by the end of the respective special clearing session. The system shall return those cheques to the BFD with reasons of 'timeout error'. The BFD is required to re-present the cheque if it so desires.

It is clarified that the functionality of 'timeout error' has been provided to protect the interest of Pay Bank due to a large value cheque being paid under auto accept as in case of regular clearing, which otherwise may not be payable. It is therefore expected that instances of 'timeout error' will be the rarest of rare.

CBO may apply a heavy penalty charge to the Pay Bank, which fails to reply to a special clearing cheque within the reply time limit of one hour besides other disciplinary action as deemed appropriate.

4.7 System Parameters

CBO shall define the following system parameters to be adopted in the daily operations:



- **Max Cheque Amount:** the maximum cheque amount that can be sent through the system as any cheque exceeding in its amount that limit must be presented in a special clearing session (*to be determined by CBO in due course*).
- **Maximum Cheque Age:** maximum age for a cheque which if exceeded the cheque will be considered out dated. The value is 6 months.
- **Maximum Number of presentment cycle** for a cheque (in case of representment required) is three times. Cheques can be re-presented within same clearing session. Three times of representment applies to cheques represented at any clearing sessions, either the same or at consecutive/non consecutive clearing session at same day or different day.
- **Maximum Batch Cheques Count:** limits the number of cheques to be captured within a batch, which is 99 cheques per batch.
- **Debit cap limit:** a bank-specific threshold defined by CBO, where if the bank debit position exceeds that limit, all cheques presented on that bank will be at hold until the bank debit position is below that limit. The returned/rejected cheques, presented by this bank earlier, though would worsen the net position, would not be put on hold for the reason the debit cap having been reached/breached.

4.8 Early Cheque Items

The CIS daily operations shall start the clearing session for a clearing day at the 1st cutoff time of the previous business day's regular clearing session. (Refer to Rules 4.2.1 and 4.5) This is to provide an earlier time for participants to submit cheques as 'early items' for the next business day clearing session.

CBO shall accept any cheque presented after 12:00pm (1st cutoff time of regular cheques) and schedule them for clearing in the clearing session of next business day. The CIS shall store them in a special queue called "early item queue" where the Pay Bank will have the accessibility of these cheques. If the Pay Bank decides to work on the 'early' cheques, the participant shall press the "release from early item" at the bottom of workstation screen to move all these cheques to the technical clearing queue.

CBO reserves the right to alter the start and end times of the early items session. Any changes to the sessions times shall be informed to participants via messages over electronic media or otherwise.



4.9 Settlement via RTGS

CIS shall prepare all replied cheques, (which are confirmed to be paid by Pay Bank or returned/rejected) and those auto-accepted, for settlement at the end of each clearing session. CIS shall perform multilateral netting of all confirmed cheques for all participants, and prepare a Net Clearing Position (NCP) file. The CIS shall submit the NCP file to CBO RTGS system at the end of each clearing session (applies to both regular and special clearing urgencies) for settlement of the funds to be transferred between the BFD and Pay Bank participants.

4.10 Authority of CBO

CBO shall have the following authorities in the daily operations of the CIS:

- Controlling the installation, maintenance “including updates”, operations, security, and contingency arrangements for CIS and the telecommunication links connecting to CIS between the Central Bank and the Participants.
- Day-to-Day control over the management of operations of the Central System
- The Management of systems capacity and telecommunications traffic
- To regulate, administer and monitor CIS. CBO shall monitor the activities of each participant in the CIS System electronically and by physical inspection to ensure and be satisfied that the participants are operating strictly in accordance with the related agreements and rules that govern CIS as also to control the risk management aspects in the system.



5. RULE 5 – CHEQUE STANDARDS

All personal cheques and company cheques in the Sultanate of Oman are eligible for clearing by the CIS. The cheques submitted to CIS must comply with standards as described in the following:

5.1 Cheque Currency

At the initial period of the CIS operations, only cheques in the currency of Omani Riyal (OMR) shall be accepted for processing. CBO shall inform all participants if other foreign currencies are implemented in the CIS operations in future.

5.2 Cheque Size

Cheques size must be within the range from 7”(length) x 2.75” (height) to 8.75”(length) x 3.667” (height).

5.3 Paper Specifications

Cheque paper sizes and characteristics are required to comply with ANSI cheque standard No. X-9 with the provisions of this standard, including the following specifications:

Specifications	From	To
Paper Thickness	0.1 mm	0.15 mm
Paper weight	75 gm	90 gm
Caliper-inches	0.005 max	0.005 max
Mullen, burst-psi	28 min	35 min
Tensile strength with grain-kg	5.9 min	8 min
Tensile strength cross grain-kg	3.4 min	4 min
Tear with grain-gm/cm	45 min	55 min
Tear cross grain-gm/cm	53 min	62 min
Stiffness with grain- Taber/150B	1.9 min	2.7 min
Stiffness cross grain- Taber/150B	0.9 min	1.3 min
Grain direction	Long	Long or short

5.4 MICR Line Standards

The MICR line on cheques must conform to the following format:

Field	Character Position	Description
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Field	Character Position	Description
Amount	1- 12	10 numeric characters bounded with an amount symbol at either end. There is a three digit assumed decimal point. This field will have leading zeros inserted when amount encoded.
Transaction code	14 – 16	3 characters in length
On-us Symbol	18	Denotes the start of the Account Number field
Account	19 - 32	14 characters in length. This is the account number of the payer.
Routing Symbol	33	Denotes the start of the routing information.
Routing Number	34 – 40	7 characters in length bounded by routing symbols: Branch number – 4 (should have leading zeros) Dash symbol Bank number – 2 (should have leading zeros)
Routing Symbol	41	Denotes end of the routing information
On-us Symbol	42	
Cheque Serial Number	43 - 50	8 characters in length
On-us Symbol	51	

5.5 MICR Specifications

The font to be used for MICR encoding is the E-13B font.

The clear band for MICR encoding should be 5/8th of an inch from the bottom of the cheque. This area must be kept clear and used only for the MICR code line. Similarly, the corresponding area on the back of the cheque must be kept clear.

The bottom of the characters in the Code line must be 3/16th of an inch from the bottom of the cheque.

The first character, i.e. the first amount symbol in position 1, must be 5/16th of an inch from the leading edge i.e. the right hand side of the cheque.



The left most character of the code line must have a minimum of 1/14 of an inch from the trailing edge i.e. the left hand side of the cheque.

The MICR characters are printed at 8 characters per inch.

All MICR fields are numeric based on ANSI standards and printed with leading zeros (zero padded).

All MICR fields (including transaction code) shall have to be captured by the system, and transferred to the Pay Bank.

5.6 Cheque Images Format

The system shall adopt ANSI X9.37 and X9.46 standards for the cheque image format that emphasizes on using a 256 grey scaled image with 200 DPI resolution compressed as JPEG format.

5.7 Non-standard Cheques

Any cheques which are non-standards with regards to the above standards are subject to rejection by the CIS.



6. RULE 6 – OUTWARD CLEARING

The participant as BFD must perform the following steps in the outward clearing of cheques deposited by their customers:

- Electronic scanning of cheques
- Data Entry for cheques captured
- Quality Assurance & Repair (if necessary) of cheques
- Balancing and presentment of cheques.

The rules for participants to follow in each of these steps are described in the following sections.

6.1 Scanning of cheques

The BFD participant must designate staff to perform scanning of cheques using the certified CIS scanners to capture electronic images of the cheques, as well as the MICR line data. The participant must create cheque batch and add the scanned cheques to batch.

Multiple cheques can be scanned where they are grouped inside batches. The participant must create batch for grouping cheques with the following common information:

- BFD Bank
- BFD Branch
- Payment Method
- BFD Account Number
- Depositor Name
- Reference Name
- Currency name
- Urgency

The system shall allow users to upload the current batch and all existing batches to the server. The system shall prevent uploading duplicate cheques. It shall also prevent users from uploading unbalanced batches. The system shall handle duplex cheque scanning (face and back sides scanning) using duplex cheque scanners.

It is the responsibility of the BFD participant to examine all physical cheques before scanning the cheques into the system. The BFD participant designated staff for scanning must act on behalf of cheque issuing bank by checking the cheque genuineness and the cheque compliance to the CIS operating rules, before he/she scan the cheque. The BFD participant





staff must not accept any non-genuine fraudulent cheques, including the following, for scanning into the system:

- any counterfeit cheque;
- copies of an original cheque via any means;
- any cheque with an embedded photo-copy information;

If the BFD participant staff is uncertain on the genuineness of any cheque (i.e. a ‘suspicious cheque’), the BFD participant staff must select the “physical paper required” option during the scanning of the ‘suspicious cheque’, to send an alert to the Pay Bank for further verification.

Any counterfeit cheque or copies of cheques are not allowed to be scanned into the system, The BFD participant shall become liable if there are any counterfeit cheques or copies of cheques found to be scanned into the system by the BFD participant. Should any such case occurs, CBO shall apply severe penalty and disciplinary action to the BFD participant.

Likewise, the BFD participant staff must not scan a physical cheque which has already been stamped with the following information:

- A presentment date stamp appears on the back side of the cheque and the cheque is not a returned cheque. This means that the cheque has already been captured into the system and is pending reply from the Pay Bank (Refer also to the rule below for stamping).
- A “Cleared/Accepted” stamp appears on the front side of the cheque. This means that the cheque has already been captured into the system and replied acceptance by the Pay Bank (Refer also to the rule below for stamping).

The system shall reject if the same cheque is scanned and uploaded again from any participant, with an error message of “duplicate cheque”.

The BFD participant shall only be allowed to scan a previous captured cheque only if the captured cheque has been returned by the Pay Bank and the cheque has changed to a ‘returned’ status. Under such case, the BFD participant may scan the cheque again if it is necessary such as for reason that a correction has been made to the physical cheque.

For representment, the participant must not scan a cheque if the cheque was first presented by a different BFD participant than the participant. The system shall reject the representment if the cheque is represented from a different participant than the original BFD participant of the cheque.

Data Entry




Designated staff of the participant must perform data entry for completing and balancing the batch and scanned cheques information. The following information must be completed and entered by participant, where necessary, at the data entry step:

- Cheque amount
- Cheque Date
- BFD bank account number for depositing cheque amount
- Any correction to the MICR line (if it has not been successfully captured in the scanning process)

6.3 Quality Assurance

The BFD participant must adopt its internal auditing procedure for performing quality assurance of cheques captured into CIS. The BFD participant must designate a different staff at supervisory level than the cheque scanning staff, to perform the quality assurance check function in the system. This shall ensure that a proper dual control is applied.

The quality assurance system flow includes the following steps:

1. The quality assurance staff examines batch/cheques against, at a minimum, the following QA metrics:
 - Check the date on the cheque
 - Check the amount in word and number
 - Check if there is alteration and endorsement on cheque
 - Check the face and back of cheque image and compare it with physical cheque paper
 - Check if the physical cheque is a genuine cheque (not counterfeit and not copies of an original cheque)
 - If cheque looks suspicious, the quality assurance staff must select the option of “physical paper required” for the Pay Bank to check the cheque
 - [u3]Check the MICR line against captured data
 - Check that the data entry or repair has not incorrectly changed the MICR data compared to the MICR line
 - Check the quality of image 
2. If batch/cheques contents pass the QA metrics, the user selects to approve the batch
3. If batch/cheques contents doesn't pass the QA metrics, the user selects to repair the batch.



It is the responsibility of the BFD participant to ensure that the quality assurance has done the best possible check on the correctness of the presented cheque information, including the captured MICR line data which may have been repaired due to reason such as an error in image capture. If CBO identifies that the BFD participant has caused an incorrect MICR data to be sent to the system, CBO may apply a penalty charge or disciplinary action to the BFD participant.

6.4 Cheque Repair

The participant staff must perform the repair function to correct all errors found in the cheques after processing them through the quality assurance step. When the repair is completed, the participant staff must dispatch repaired batch for performing QA step again.

The replied batches system flow provides the ability to view all the cheques that were sent to the Pay Bank showing the status (BFD waiting reply). Also, to view all replied cheques that are accepted or rejected showing the status (replied items).

6.5 Inquiry of Replied Batches

The CIS provides function for participants to inquire replied batches which are sent from Pay Bank to BFD. The replied batches information identifies cheques which are accepted by the Pay Bank and cheques which are rejected.

BFD user should either send those rejected cheques to the repairing phase, or to represent them to the CIS after the reason for rejection are rectified.

6.6 Cheque Stamping

Immediately after the scanning of a cheque is successfully done, the BFD participant must stamp the cheque with the presentment date at the back side of physical cheque. This should provide an evidence that the physical cheque has been captured and the same physical cheque should not be captured again by any participant.

If a cheque has been replied accepted by the Pay Bank, the BFD participant must stamp the replied cheque remark of “Cleared/Accepted” at the front side of physical cheque. This will give a detailed track of cheque presentment cycles and its acceptance date. The stamp should be used by any BFD participant to make reference so that the participant shall not scan a duplicate cheque when the cheque is either waiting for reply from Pay Bank, or has already been replied and cleared by the Pay Bank.



If a cheque is rejected by system or returned by Pay Bank, the BFD participant should stamp the remark of “Rejected/Returned” at the front side of physical cheque. The stamp should be used a track record that the BFD participant may scan the cheque and represent it again, if the cheque error/exception has been resolved and the customer request to represent the cheque.

In case of cheque representment, the BFD participant shall stamp another presentment date at the back side of the physical cheque. This shall give a detailed track of cheque presentment cycles.

6.7 Cheque Endorsement

Participants shall be able to perform cheque endorsement using the stamping function on cheque scanner, if available. The cheque stamp shall support dynamic data which include capturing date, bank branch, capturing user ID. The system shall print the cheque stamp at the rear side of the cheque.

Under the cheque imaging environment, participants shall not send physical cheques to the Clearing House. The endorsement of a cheque from the cheque presenting participant shall be based on the completion of all the necessary steps of data entry and quality assurance in outward clearing of the cheque.

6.8 Cheque Representment

BFD may resend a rejected cheque to CIS for re-presentment, if the BFD believes the exception which causes the rejection has been rectified.

A cheque which needs to be resent to CIS must only be represented from the same BFD which first presented it to CIS. The system shall reject the representment if the cheque is represented from a participant different from the original BFD participant of the cheque.

6.9 Deposit Advice Printing

BFD user may print a Deposit Advice from CIS for a cheque which has been replied as accepted by the Pay Bank. The BFD can forward the deposit advice to the depositing customer for his reference.

6.10 Return Advice Printing



BFD user may print a Returned Cheque Advice from CIS for a cheque which has been rejected by the Pay Bank as returned cheque. The BFD can forward the returned cheque advice to the depositing customer for his perusal.

6.11 Special Handling Cheques

If the BFD identifies a deposited cheque as suspicious and would like to request the Pay Bank to check the cheque, the BFD user should flag the cheque in CIS as 'physical paper required /special handling required'. The CIS will transmit the cheque information together with this flag to the Pay Bank. This is indicate that this is a suspected cheque and it's physical copy shall be presented to the Pay Bank before end of clearing session.

If BFD does not send the physical cheque to the Pay Bank within the end of the clearing session, the Pay Bank is allowed to return the cheque with return reason "physical cheque not received" and then send it back to the BFD.



7. Rule 7 – Inward Clearing

The participant as Pay Bank must perform the following steps in the inward clearing of cheques sent from CBO CIS to the participants:

- Technical Clearing of cheques
- Financial Clearing
- Clearing Approval of cheques
- Return of rejected cheques

The rules for participants to follow in each of these steps are described in the following sections.

7.1 Technical Clearing

Pay Bank participant must designate staff to perform Technical Clearing of cheques against a specific technical checklist. The technical checklist must include, at a minimum, the following items:

- a. Check the cheque signature against payer customer's signature
- b. Check whether the amount in words and amount in figures are the same in sum and word
- c. Check that any alternation on cheque must be countersigned
- d. Check that the cheque date must be same as or before the current business date
- e. Check whether the cheque is a stale (out of date)
- f. Check the MICR line on the cheque image against data captured
- g. Check whether the cheque is drawn on the Pay Bank
- h. Check the authenticity of the cheque image
- i. Check whether the cheque requires specific handling
- j. Check whether the cheque is a stop cheque
- k. Check whether the physical copy of the cheque is required to be examined.

The Pay Bank participant must pay attention if the different MICR line data captured, such as pay bank number, branch code, account number, are different from the MICR line on the image. This could have occurred due to one of the following possible reasons:

- BFD participant has modified/repared any one of the MICR data fields after they are captured.
- The MICR line was not correctly captured due to the physical MICR line quality, and the quality assurance of BFD participant has not taken any action.



Under such situation, the Pay Bank participant clearing staff should analyse and make decisions if the cheque is drawn on the correct participant, branch or account; accordingly the clearing staff should decide whether to accept or return the cheque.

It is the responsibility of the Pay Bank participant to ensure that their clearing staff has done the best possible verification of the MICR data captured against the MICR line on the cheque image. If the Pay Bank participant has failed to detect an error in the MICR data captured, the Pay Bank shall be responsible for any financial loss or complaint on the cheque payment caused by the error.

7.2 Financial Clearing

Pay Bank staff must perform financial clearing of incoming cheque by verifying against a specific financial checklist. The financial clearing checklist must include, at a minimum, the following items:

- a. Check whether the payer customer's account available balance has sufficient funds for the cheque payment amount
- b. Check whether the payer customer's account is not in blocked or closing status

7.3 Clearing Approval

Pay Bank participant must assign the appropriate staff personnel to perform Clearing Approval of a cheque, after the technical clearing and financial clearing steps are completed. The clearing approval user must decide the action for the cheque and send reply to the BFD. The action for clearing approval must be either:

- Approve the cheque for subsequent payment to BFD, or
- Reject the cheque with valid return reason.

7.4 Stop Pay Cheques

The Pay Bank participant may define a list of stop pay cheques in the CIS. The CIS shall verify if any inward clearing cheque has a match with the stop pay list. If a match is identified, the system shall tag the cheque with a warning message to inform Pay Bank clearing user at the technical clearing and financial clearing stages.

The Pay Bank shall be responsible to make the final decision as to whether to return the cheque with the 'stop pay matched' warning.

The Pay Bank shall be responsible for any addition or correction to the stop pay cheques list in the CIS.



7.5 Positive Pay Cheques

The Pay Bank participant may define a list of positive pay cheques in the CIS. The CIS shall verify if any inward clearing cheque has a match with the positive pay list. If a match is identified, the system shall tag the cheque with an information message to inform Pay Bank clearing user at the technical clearing and financial clearing stages.

The Pay Bank shall be responsible to make the final decision as to whether to approve the cheque with the 'positive pay matched' message.

The Pay Bank shall be responsible for any addition or correction to the positive pay cheques list information maintained in the CIS.



8. RULE 8 – CHEQUE RETURN PROCESSING

The CIS shall return cheques to the BFD under the following two conditions:

- a). Cheques are rejected by CIS due to system return reason
- b). Cheques are rejected by the Pay Bank due to technical or financial reason

Accordingly, the return reasons are divided into two types:

1. **System Return Reasons:** The reasons that will be used by the system to reject a cheque automatically on behalf of the Central Bank, due to errors or exceptions identified on the cheque
2. **Pay Bank Return Reasons:** The reasons that shall be used by the Pay Bank to reply on the rejected cheques. These reasons (technical and financial reasons) are defined in the following sections.

Countable Flag (Please see Rules 8.1 and 8.2 below): Each return reason has a countable flag that shows if this reason will be taken into consideration when counting the number of presentments for the cheque. If countable flag is ‘Y’ i.e. YES: this means that the reason will be considered when counting the no. of presenting cycles for the cheque, but if it is ‘N’ i.e. NO then it will never be considered when counting the number of presenting cycles of the cheque.

8.1 System Return Reasons

The system return reasons shall be used to reply to cheque(s) that it is rejected or accepted due to a certain system reason based on the situation of the cheque.

The following table describes the list of system returned reasons:

Return Reasons	Purpose	Countable Flag
No available session	This reason is used to reject the cheque automatically if the presenting bank tried to send a cheque outside the available presenting period or when the daily clearing session is not available.	N



Return Reasons	Purpose	Countable Flag
Duplicate Cheque	This reason is used to reject a cheque if the an already existing cheque was presented by another bank	N
Bank Suspended	This reason is used to reject the cheque automatically if the BFD bank or Pay Bank has been suspended.	N
Destination Unreachable	This reason is used to reject the cheque automatically if the presenting bank sent a cheque to CIS, and CIS has performed the maximum number of retries in attempting to send the cheque to the Pay Bank (destination) without being able to deliver the cheque, then it will send an automatic reply that the cheque is rejected due to a problem in the communication	N
Different BFD	This reason is used when rejecting the cheque automatically from the CIS due to its presentment from two different banks.	N
Cheque already paid	This reason is used when the presenting bank tries to send a cheque that has been already accepted / paid and it has been moved to history	N
Exceed re-presentment count	This reason is used if the presenting bank has exceeded the maximum number of presentment times. The number of presentment times for each cheque is determined and monitored by the CIS central system.	N
Session Terminated	This reason is used a cheque should be rejected due to a terminated session	N
Bank Defaulted	This reason is used when the cheque is presented from or to a bank that has been defaulted.	N



Return Reasons	Purpose	Countable Flag
Bank Terminated	This reason is used when the cheque is presented from or to a bank that has been terminated.	N

8.2 Pay Bank Return Reasons

The following table is the list of Pay Bank return reasons (technical and financial reasons) which are allowed to be used by participants:

The return reasons in italic are newly implemented for CIS in the Oman environment.

Return Reason	Purpose	Countable Flag
Insufficient funds	This reason shall be used by the financial clearing users when the available balance of the customer pay account number is not sufficient to make the cheque payment.	Y
Refer to Drawer (Other Than Insufficient Funds)	This reason shall be used by technical clearing user if the cheque matches with a stop cheque as instructed by the drawer customer; in which case the Pay Bank needs to contact the drawer customer to determine if the stop cheque is a valid reason for return of cheque.	Y
Stale cheque (out of date cheque)	This reason shall be used by the technical clearing users when the Pay Bank decides not to honour a cheque which has exceeded the maximum old date cheques defined in the system.	Y
Post Dated/ Undated	This reason shall be used by the technical clearing user when the Pay Bank receives a cheque which is either post dated or	Y



Return Reason	Purpose	Countable Flag
	undated. Post dated cheque should be held in the Post Dated Cheque store of the presenting bank and not sent to Pay Bank until the post date business day is reached.	
Payee's Name Required/ Payee`s Endorsement Irregular	The reason is used when the payee name on the cheque is not clearly identified.	Y
Stop Pay Cheque	This reason is used in the financial clearing users, and its purpose is to reject the cheque which has been added on the stop cheque list and/or when it is reported as a lost cheque.	Y
Alteration - Requires Drawers Confirm	This reason is used by the technical clearing users, and its purpose is to reject the cheque when the cheque is edited without being approved from the drawer (the issuer of the cheque)	Y
Amount in words and figures differs	This reason is used in technical clearing to reject the cheque when its amount which is written in words doesn't match the amount which is written in numbers	Y
Cheque Not Drawn on us	This reason is used by the technical clearing users, and its purpose is to reject the cheque incase it has been presented to a wrong destination bank. This case can happen rarely if the MICR line (especially the bank code) of the cheque has been read incorrectly, and the presenting bank is responsible for this fault.	N
Drawer's Signature Required/Differs/Addition Signature Required	This reason is used in technical clearing when there is missing signature, or the signature of the cheque doesn't match the signature on the banking system or when the signature of the cheque doesn't match	Y



Return Reason	Purpose	Countable Flag
	the customer countersign on any alteration made on the cheque.	
Account Closed/Transferred/Frozen	This reason is used in financial clearing when the drawer's account is closed, transferred, or frozen status.	Y
Drawer Reported Deceased	This reason is used in financial clearing when the drawer has been reported deceased.	Y
Special handling cheque not received	The reason is used when the inward cheque image record is marked for 'special handling required' but the Pay Bank has not received from BFD the physical cheque for examination.	Y
<i>Court order not to pay check</i>	<i>This reason can be viewed by the financial clearing users, and its purpose is to reject the cheque when there is a restriction on the cheque from the court, as it is stopped from the court.</i>	Y
<i>Account number doesn't belong to drawer/ the cheque isn't related to the client</i>	<i>This reason shall be used by the technical clearing users, and its purpose is to reject the cheque due to the inconsistency in the account number and the owner of this account. As this case might happen if the teller at the presenting bank didn't notice the error when scanning the cheque, or when he/she edits the account number of the MICR wrongly</i>	Y
<i>Drawer bankruptcy</i>	<i>This reason is used to reject the cheque when it is drawn on a bankrupted drawer (in other words; when it is drawn on a bankrupted client)</i>	Y
<i>Difference between check image and data/ Data and</i>	<i>This reason is used by the technical clearing users when the teller or the user</i>	Y



Return Reason	Purpose	Countable Flag
<i>image mismatch</i>	<i>at the presenting bank has entered incorrect data (such as: Amount, or date) as compared to the cheque data.</i>	
<i>Recall by Presenting Bank</i>	<i>This reason is used by the technical clearing users when the BFD informs that the cheque is incorrectly presented, and should not be paid by the Pay Bank.</i>	N

8.3 Obsolete Return Reasons

Since the cheque clearing operations shall be conducted using online cheque images and electronic data, the exchange of paper cheques for daily clearing is no longer required. The following return reasons which are applicable only in the paper cheques environment shall not be applicable in the CIS operations:

Reasons to become obsolete	Justification
Mutilated cheque/ Envelope	The use of envelope for return cheques and non-MICR cheques are not required anymore since cheques are exchanged electronically and return cheques are sent online from Pay Bank to the BFD.
Other returned reason	This should not be used in order to avoid misuse by Pay Bank and cause delay or non payment to an inward cheque without an approved reason.
Crossed by 2 Bankers/ Cancellation of Cross Stamp Required	Stamping on the cheque shall not be provided to Pay Bank, since the physical cheques will not be exchanged with the Pay Bank. The cheques received by the Pay Bank shall have been endorsed by the BFD after it has completed data entry and quality assurance steps.
Effect Not Cleared- May Be Presented Again After—Days	This should not be continued in use, since it may be abused by banks inadvertently to return a cheque due to other reasons such as insufficient funds. The Pay Bank should state the genuine reason why a cheque cannot be honoured now and need to be represented.



8.4 Return Cutoff Time

The Pay Bank shall observe the cutoff time defined for return cheques for each clearing session. The CIS shall not accept any return cheques which are sent by Pay Bank participants after the second cutoff time of the respective clearing session for the original cheques.

8.5 Recall of Cheque

Once BFD participant presents a cheque which has been accepted by CIS, the participant is not allowed to recall the cheque and cancel it for clearing.

If BFD needs to recall a cheque because it has been presented to CIS by mistake, the BFD should contact the Pay Bank and request the Pay Bank to return the cheque

A return reason of “incorrectly presented by BFD” should be input by the Pay Bank. The CIS shall not count the number of presentment for this cheque like other return items.

8.6 Incorrectly Presented Cheques

If BFD participant identifies that he has incorrectly presented a cheque and the cheque is accepted by the CIS, the participant should immediately contact CBO to request ‘cancellation by CBO’ from the cheque MICR uniqueness log. This must be performed before the participant presents the correct cheque which has the same MICR line information. Otherwise, the CIS shall handle the second presentment as a ‘duplicate’ cheque.

8.7 Return Cheque Advices

When the Pay Bank returns a cheque with a valid reason within the cutoff time limits of the clearing session, the CIS shall forward the return cheques to the BFD for their attention.

The CIS provides a Return Cheque Advice function for enquiring and printing returned cheques. BFD participant shall be able to print the Return Cheque Advice which provides a record for the cheque image and the return reason. The Returned Cheque Advice shall be used by the BFD as the sole advice and evidence of returned cheque for providing to the cheque depositing customer. Any other advice or cheque images, which are not produced from the CBO CIS, shall not be used by any participant for providing to the cheque depositing customers as evidence of returned cheque.



9. RULE 9 – SETTLEMENT OF CLEARING

9.1 Time of Settlement and settlement schedule

CIS shall perform multilateral net settlement of cheque payments amongst participants by sending the net settlement result to CBO RTGS system.

Net settlement will be carried out at the end of each clearing session. Multiple net settlements will be performed for special clearing cheques (once for each special clearing session). A single net settlement for regular cheques shall be performed each day after the regular clearing session for clearing business day ends.

The normal daily schedule for CIS to commence settlement process with RTGS system is as follows:

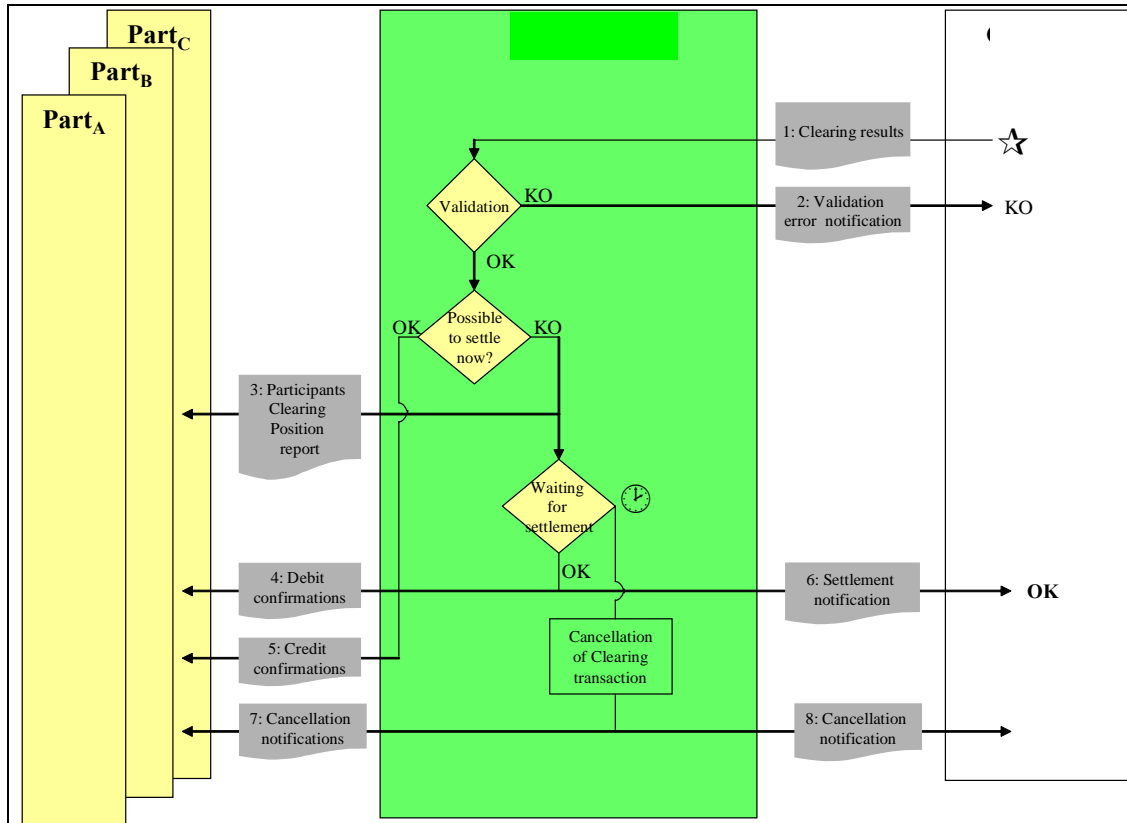
1. 10:30am - net settlement for 1st special clearing session
2. 11:30am - net settlement for 2nd special clearing session
3. 12:30pm - net settlement for 3rd special clearing session
4. 1:30pm – net settlement for regular cheque clearing session

CBO reserves the right to modify the number of times of settlement and their time schedule within each business day depending on the operational situation.

The CIS shall generate Net Clearing Position (NCP) file for each net settlement. The NCP shall use a SWIFT MT971 message format. The CIS shall send the NCP via a MT971 message to RTGS system.

9.2 Settlement Process

The process of settlement of NCP with RTGS shall follow the message flow in the following diagram:



During exchange window of RTGS, the CIS submits a MT971 Message containing the Net position of Participants (credit or debit) (Step 1). RTGS validates this message and issues an error notification if it didn't pass through validation procedure (Step2). If the validation is successful, the message is presented to Settlement as Net transaction. RTGS checks the availability of funds in Participants' Accounts with Net debit positions and, once funds are available, debit and credit the Accounts of clearing Participants on an "all-or-none" basis. In case of lack of funds on any account, Net transaction is queued.

If there are no sufficient funds to settle Net transaction on Settlement account(s) of any Participant(s), Participant(s) will be notified by RTGS system sending a special message (Step 3) to Participants that should cover their Debit positions. This message contains Net Debit position and Available balance of the Settlement account.

9.3 Notification of Settlement

When net settlement is successfully performed by the RTGS system, each participant in the respective NCP settlement list shall receive from the RTGS system appropriate debit/credit notification (i.e. MT900/MT910 messages) (Steps 4, 5 and 6) message for the debit/credit transaction effected on the participant's settlement account in the RTGS system.



9.4 Failure of Settlement

If the net settlement cannot be performed because one or more participants cannot fund their settlement account and fulfill obligation, CBO ordinarily shall not unwind and cancel all clearing cheques transactions for that Participant immediately but shall provide the following options for remedying the situation:

- The failing participant borrows funds from the interbank market;
- The failing participant requests for liquidity via Repo in RTGS (please refer to the RTGS Operating Rules for liquidity support under intra-day repo).

The options have to be explored within the settlement session.



10. RULE 10 – FINALITY OF PAYMENT

10.1 Definition of Finality

When the settlement of Net Clearing Positions (NCP) in the RTGS completes successfully, all the cheque payments which are included in the NCP file are deemed 'final'. Net settlement in RTGS system once completed is irrevocable.

10.2 Obligations of Participant

Once payment of a cheque is deemed final at the end of its clearing cycle, BFD is obliged to pass credit of the cheque value to the beneficiary customer of the cheque. The participant shall value the credit to the beneficiary as soon as possible at the same day when the cheque finality is reached.

10.3 Return of Funds

Once a CIS cheque payment is settled in RTGS and reached finality, any request from the Pay Bank for return of funds on behalf of their customers should be handled outside CIS and follow the same rule defined for RTGS operations.

If a net settlement transaction for a participant, which has been completed in RTGS as final, is later on found to be erroneous by the participant, the participant is obliged to contact the counterpart participant which is involved in the error. The two participants should seek mutual agreement on the appropriate method of resolution. Any payment used for the resolution between the two participants should be proceeded as a new transaction and does not change the irrevocability of the previously completed net settlement transaction.



11. RULE 11– SYSTEM INTERFACES

11.1 Interface with Core Banking System

Participants shall be allowed to develop system interfaces between their core banking system and the CIS. The system interface shall provide the outward cheque data file and inward cheque data file which contains the cheque transactions ready for posting to the participant’s core banking system.

Participants who elect to implement the system interface with CIS, shall be responsible for performing all necessary development work on their in-house systems for the system interface. The system interface should be developed in such way to enable automation of the cheque clearing and posting process as far as possible.

CBO shall provide the Software Development Kit (SDK) Application Program Interface (API) of the CIS to participants for development of the participant’s core banking system interface to CIS.

The API and message formats shall follow the specification provided in section 26.2 Appendix II. Participants shall establish their own resources and facilities for the development and support of the ongoing operations of the interface.

11.2 Inward Clearing File Interface

The CIS provides participants with a batch file of all inward clearing cheques which can be downloaded by participants at any time within a clearing session.

The file specification of the interface file, called ICL (“Inward Clearing File”), is as specified in section 26.3 appendix III of this document.



12. RULE 12 – REPORTS

12.1 Outward Reports

The CIS provides the following data reports to all participants:

- Outward Summary Report
- Presented Cheques by BFD Branches
- Presented Cheques by Pay Bank
- Detailed Presented Cheques
- Honoured Cheques by BFD Branch
- Honoured Cheques by Pay Bank
- Detailed Honoured Cheques
- Returned Cheques by BFD Branch
- Returned Cheques by Pay Branch
- Detailed Returned Cheques
- System Returned Cheques by BFD Branch
- System Returned Cheques by Pay Bank
- Detailed System Returned Cheques
- Destination Unreachable Cheques by BFD Branch
- Destination Unreachable Cheques by Pay Bank
- Destination Unreachable Returned Cheques
- No Session Available Returned Cheques by BFD Branch
- No Session Available Returned Cheques by Pay Bank
- Detailed No Session Available Returned Cheques
- Waiting Cheques by BFD Branch
- Waiting Cheques by Pay Bank
- Detailed Waiting Cheques
- Auto Replied Cheques by BFD Branch
- Auto Replied Cheques by Pay Bank
- Detailed Outward Auto Replied Cheques

12.2 Inward Reports

The CIS provides the following data reports to all participants:

- Inward Summary Report
- Received Cheques by Pay Branch
- Received Cheques by BFD Bank



- Accepted Cheques by Pay Branch
- Accepted Cheques by BFD Bank
- Rejected Cheques by Pay Branch
- Rejected Cheques by BFD Bank
- Pending Cheques by Pay Branch
- Pending Cheques by BFD Bank
- Detailed Pending Cheques
- Auto Replied Cheques by Pay Branch
- Auto Replied Cheques by BFD Bank
- Detailed Inward Auto Replied Cheques
- Net Clearing Position

12.3 Outward & Inward Management Reports

The CIS provides the following data reports to all participants:

- Presented and Rejected
- Received and Returned
- End of Session Reconciliation Report
- Presented and Returned Statistics Report
- Received and Rejected Statistics Report
- Bank Returned Statistics Report
- Bank Rejected Statistics Report
- System Returned Statistics Report
- System Rejected Statistics Report
- Technical Returned Statistics Report
- Technical Rejected Statistics Report
- Financial Returned Statistics Report
- Financial Rejected Statistics Report
- Auto-Accepted Statistics
- Net Clearing Position Details by Session
- Net Clearing Position Details for all Sessions
- Net Clearing Position Summary by Session
- Net Clearing Position Summary for all Sessions

12.4 Online Inquiry

The CIS provides the following information available for online inquiry by all participants:

- Master Exchange Query of cheques presented by and to the banks
- History Query of Cheques



13. RULE 13 – SECURITY CONTROLS

13.1 Cryptography Security

The system shall encrypt all cheque image data using 128-bit cryptography key. The system shall validate the authenticity of cheque images and cheque data by the following:

- Encrypted cheque image shall be verified via decryption using non-repudiation algorithm.
- MICR line data shall be validated based on the ANSI and E13B standards to safeguard against any possible counterfeit cheque.

13.2 Authentication

The CIS identifies and authenticates each user interacting with the system, including designated users from participant or CBO, by verifying the identifier that is being used and the password.

The information about user logons/logoffs or incoming and outgoing messages is stored in the database with associated timestamps, physical source identification as well as the acknowledgement message of the system.

A forced logoff facility after a certain period of inactivity (time out) shall be used by participant. The maximum duration of an idle period is configurable both by the Participant for his own site and by the system's administrator.

The system shall support authentication of logon by the participant using directory services.

The system shall support three levels of authentication:

1. Local Participant User Level – authentication check will be performed based on the domain security build in the operating system of CIS.
2. Inter Process Level – authentication at the level of the system core services.
3. Inter Site Level – authentication at the level of the data exchange module whenever participate core banking system connects to the CIS application to exchange data.

13.3 User Management



CBO shall perform user management function to add or delete users to the system. The user management function also defines or modifies the following attribute of users:

- User account lock
- User allowed working hours on the system
- User belonging group
- User belonging role
- User workstation
- Directory user setting

13.4 Group Management

The system shall allow defining User Groups for each participant. The Group Management function of the system performs the following:

- Add/delete/modify/list Group definition
- List of user members to the Group

13.5 Role Management

Upon authenticating the user, the system shall authorize the user to access certain functionality depending on his assigned role. The system shall provide Role Management function for participants to perform the following:

- Add/delete/modify/list Roles definition
- List of privileges definition within a Role
- List of user members to the Role

13.6 Access Control List (ACL)

The CIS shall maintain Access Control List (ACL) to define the list of authorized functions for each user in participants and CBO organization. User cannot access any other function which is not allowed in the ACL.

The CIS ACL management function shall also define the list of branches for each participant and the access control privileges on branches users.

CBO system administrator shall have the right to define the access privilege of users of each participant. CBO system administrator shall perform the following responsibilities:



- to distribute responsibilities according to type of Participant and User of Participant within CIS;
- to assign Access Rights for each Participant independently and according to his role in the system;
- to adjust Access Rights for each Participant independently;
- to change Access Rights assigned to Participant where necessary;
- to audit Access Rights previously assigned to Participants.

13.7 System Administration

CBO shall perform administration of security policies to which participant users must comply with. CBO shall have the right to modify the security policies depending on operating environment, and shall advise all participants accordingly.

The security policies of system shall include the following:

- complex password rules which include:
 - password expiration period
 - minimum password length
 - password mask complexity
- password history
- list of application components configured on the system
- list of workstations configured on the system
- Directory Services Setting

13.8 Audit Log Management

The system shall record audit trail records for each and every action performed by the users and the system.

Participants shall be allowed to export audit trails pertaining to their activities via an external file. Participants shall maintain proper backups of the exported external files for their own use.

13.9 Participant's Database Security

CBO shall maintain and monitor the security protection of the database information belonging to each participant in the central CIS ASP system. The database security measures shall implement the following:



- User database access limited to authorized users only
- Database level integrity hashing (using MD5 hashing algorithm)
- Cheque Image encryption
- No participant shall be able to access information of database belonging to any other participant.

13.10 Participant's Responsibilities

13.10.1 Password Security

CBO shall provide username and password to authorized users of participants for access to CIS. MD5 hashing is used to encrypt passwords. It is the responsibility of the participants to ensure that their staff in CIS shall apply strict code of conduct of protecting the username and password information, and safeguard against compromise by unauthorized users at their ends.

13.10.2 Anti-virus protection

Participants shall ensure and implement effective anti-virus protection on any computer equipment used for access to CIS. The participant's policy towards anti-virus shall include the following:

- Up-to-date PC anti-virus software must be installed and activated in all CIS workstations of participants.
- Regular update of virus signature files shall be performed to keep updated with any new virus or worm identified in the industry.

13.10.3 Physical Access Protection

Participants shall establish and maintain strict physical access control to their premise and equipment, including workstation, scanner, printers and communication equipment, designated for CIS operations. The physical access control must be followed in participant's head offices and any remote branches to protect against access by any unauthorized personnel. The protection must be effective and robust.

13.10.4 Isolation with External network



The central CIS is operated on an ASP system and participant's CIS workstation accesses through web communication over the Oman NPS Banknet. Participants must implement protection to ensure that the participants' access points to the CIS network are securely isolated from any other network within the participants' environment. The protection must be effective to inhibit any possible penetration from external sources into the CIS network.

Where necessary, the participants shall install the necessary firewall hardware and software between the participant's own branch network and the CIS network.

In the situation where participants need to establish core banking system interface with the CIS, the participants shall comply with the security of the following standards used for the development and operations of interfaces:

- SOAP protocol for communication between CIS and participant's core banking system.
- MD5 hashing for authentication of participant's core banking system interface.

13.10.5 *Fraudulent Cheque Checking*

It is the responsibility of the BFD participant to examine, verify all physical cheques and reject any fraudulent cheques before performing cheque scanning in the system. The BFD participant staff designated for scanning must act on behalf of cheque issuing bank by checking the cheque genuineness and the cheque compliance to the CIS operating rules. In future, the physical cheque may be truncated at BFD and the Pay Bank shall not receive the physical cheque for verification.

The BFD participant staff must not accept any fraudulent cheques, including the following, for scanning into the system:

- Any counterfeit cheque;
- copies of an original cheque via any means;
- any cheque with an embedded photo-copy information

If the BFD participant staff is uncertain on the genuineness of any cheque (i.e. a 'suspicious cheque'), the BFD participant staff must select the "physical paper required" option at the time of scanning the 'suspicious cheque, to send an alert to the Pay Bank for further verification. The BFD participant should then follow-up by delivering the original physical cheque to the Pay Bank within the allowed presentment cycle of the cheque.

Participants shall bear full responsibility and shall subject to severe penalty and disciplinary action applied by CBO, if the participants capture any counterfeit cheque, non-genuine copies of cheques and present those cheques to the CIS.



14. RULE 14 – SPECIAL PROCESSING DAYS

14.1 Business Hours for Ramadan

During the Ramadan period, the business hours of CIS, on each day of every week which starts from Sunday to Thursday, will be adjusted to the following timetable:

Please note that:

- Regular clearing session will end presentment at an earlier time of 11:30am, and end reply session at 1:00 pm.

Time	CIS Daily Business Period	Remark
08:30am	<ul style="list-style-type: none">• Start of day• Regular Clearing Session starts• 1st Special Clearing Session starts	BFDs present cheques for regular and special clearing urgencies. CBO send them to Pay Banks. Pay Banks start sending reply or return of cheques.
09:30m	<ul style="list-style-type: none">• End presentment for 1st Special Clearing session.• 2nd Special Clearing session starts.	End of presentment of special clearing cheques for the 1 st special clearing session. Any further special clearing cheque received by CBO will be scheduled for clearing in the 2 nd special clearing session.
10:30am	<ul style="list-style-type: none">• End reply for 1st Special clearing session.• <i>Settlement of 1st special clearing session.</i>• End presentment for 2nd Special Clearing session.• 3rd Special Clearing session starts.	<p>End of reply/return period for the 1st special clearing session.</p> <p>CIS submits net clearing position for 1st special clearing to RTGS for settlement.</p> <p>End of presentment of special clearing cheques for the 2nd special clearing session. Any further special clearing cheque received by CBO will be scheduled for clearing in the 3rd special clearing session.</p>



Time	CIS Daily Business Period	Remark
11:30am	<ul style="list-style-type: none">• End presentment for Today’s regular clearing session.• Regular Clearing for ‘Next’ business day starts• End reply for 2nd Special clearing session.• <i>Settlement of 2nd special clearing session.</i>• End presentment for 3rd Special Clearing session.	<p>Any further regular clearing cheques received by CBO after this time will be scheduled for clearing in next day regular clearing session.</p> <p>End of reply/return period for the 2nd special clearing session.</p> <p>CIS submits net clearing position for 2nd special clearing to RTGS for settlement.</p>
12:30pm	<ul style="list-style-type: none">• End reply for 3rd Special clearing session.• <i>Settlement of 3rd special clearing session.</i>	<p>End of reply/return period for the 3rd special clearing session.</p> <p>CIS submits net clearing position for 3rd special clearing to RTGS for settlement.</p>
1:00pm	<ul style="list-style-type: none">• End reply for Today’s regular clearing session.• Settlement of Today’s regular clearing cheques	<p>End of reply/return period for all today’s regular cheques.</p>
1:30pm	<ul style="list-style-type: none">• End of day reports and reconciliation.	-
2:00pm	<ul style="list-style-type: none">• CBO performs database backup and archive	-
2:30pm	<ul style="list-style-type: none">• End of today’s business day	-

14.2 Scheduled Public Holidays

CIS system operations shall not be available on Fridays, Saturdays and other scheduled public holidays in Oman.



All cheques which have been presented as early items on the last working day before the public holiday shall be carried forward to the next working day after the public holiday for completing the clearing cycle.

14.3 Unscheduled Public Holidays

In the event that an unscheduled sudden holiday (not known earlier) is being declared in Oman:

- For the regular clearing cheques which have been submitted to the system, CBO will extend the CIS current clearing session to continue until the end time on the next working business day;
- For special clearing cheques - CIS will stop accepting any new special clearing cheques from BFD starting from the moment when the sudden holiday is declared. All special clearing cheques which have been sent and pending reply will continue to either receive responses from the Pay Banks, or to be timed out by the system at the cutoff time of the special clearing session. New special clearing sessions will be opened on the next working day after the sudden holiday, at their respective daily scheduled times.



15. RULE 15 – CHEQUE DATES

15.1 Out of Dates Cheques

The acceptance and payment of out of dated cheques shall follow the respective articles in the Oman Banking Law.

Currently Oman Banking Law Article 113 related to ‘Out-of-date Cheque’ states that Pay Bank is not obliged to pay a cheque presented more than six (6) months after its date of issue, provided that Pay Bank may pay the cheque when such payment was in good faith and did not violate any instructions from the customer.

BFD may base on its judgment to accept an out-of-date cheque and present it to CIS. The Pay Bank has the right to decide whether to pay or not to pay the cheque. The CIS will send the out-of-date cheque to the Pay Bank with a warning of “maximum age exceeded”. Pay Bank shall perform its own decision and if the decision is to return the cheque, the Pay Bank shall mark the return reason of “Out of Date Cheque” at Return processing.

15.2 Post Dated Cheques

The CIS shall support acceptance of Post Dated Cheques (PDC) deposited from customers to a participant. The system shall maintain PDC in a PDC database. When the payment date of a PDC is due, the CIS shall roll the PDC into the normal clearing cycle.

The system does not restrict the future value date of the PDC.

Participant should follow the following procedure for processing PDC:

15.2.1 PDC Input to CIS

BFD participants shall perform the following steps for inputting the PDC to CIS:

1. Scanning of the PDC via CIS cheque scanner
2. Filling in the incomplete cheque information for PDC using the CIS Data Entry function.
3. Quality Assurance (QA) by BFD supervisors to verify the correctness of PDC
4. Repairing of PDC, where necessary of the PDC information, in order to clear the QA and to safe-keep the PDC to CIS.



15.2.2 PDC Store

CIS shall maintain a PDC Store for safe-keeping of active PDCs. BFD participants shall be allowed to perform the functions on the PDC Store:

- List cheques
- View cheque information.
- View cheque image
- Edit cheque information
- Advance the posting Date of PDC.
- Send PDC to CBO for presentment



16. RULE 16 - DEBIT CAP MANAGEMENT

16.1 Setting up of Debit Cap

CBO shall maintain Debit Cap limits for participants in CIS. The Debit Cap limits define the maximum intraday net debit positions allowed for individual participants within a clearing session. CBO reserves the right to determine or to modify the Debit Cap Limit for any participant based on CBO assessment of the CIS operations environment and the financial position of individual participants.

16.2 Monitoring of Debit Cap

During the day, the CIS shall maintain and update the debit positions of each participant in accordance with the cheque presentment and replies activities of the participant. If the debit position of a participant reaches the participant's Debit Cap limit, the system shall hold any further cheques which are newly presented and drawn on the participant.

The returned/rejected cheques, presented by this participant earlier, though would worsen the net position, would not be put on hold for the reason the debit cap having been reached/breached.

The system shall release these on-hold cheques when the debit position of the participant is reduced to below the Debit Cap limit via the following means:

- When the pending cheques presented by the participant are replied for payment by the Pay Banks of those pending cheques; or
- when CBO decides to increase the Debit Cap limit for the participant. CBO reserves the right to decide to approve an increase of the Debit Cap limit of a participant in accordance with the Participant's settlement account balance in the RTGS system.

16.3 Debit Cap Exceeded at End of Session

If session presentment-time is elapsed when the Debit Cap of a participant is exceeded, CIS shall reject all those cheques which are held for presentment to the participant. The system shall return those cheques to the presenting participants with a system return reason of "Debit Cap (of the Pay Bank) Exceeded".



17. RULE 17 – HANDLING OF PHYSICAL CHEQUES

17.1 Legalization of Cheque Images

Cheque images are equivalent to the use of physical cheque paper as the bill of exchange for payment processing, and shall have acceptance in the Court of Oman as legal evidence. (Refer also to Rule 17.2 below). For the present, BFD would preserve all physical cheques presented by it in the clearing for a minimum period of 3 years from the date of payment. Similarly, Pay Bank would preserve all physical cheques forwarded to it by BFD in the clearing in terms of Rule 6.11 for a minimum period of 3 years from the date of payment. The BFD and Pay Bank, as the case may be, would be custodians of physical cheques for this period and will be responsible for their safe preservation.

For cheques which have been rejected, or returned, to the BFD, the BFD shall return the physical cheques to the cheque payee customers. The BFD shall also print the Cheque Return Advice for a rejected/returned cheque from the CIS to show the returned reason, and attach it together with the original physical cheque for returning to the customers.

Participants are required to maintain access to the cheque images in CIS for cheques of which they are either the BFD or Pay Bank. Prior to the legalization of acceptance of cheque images in the Court of Oman as legal evidence is achieved, the BFD/Pay Bank, on request would produce the physical cheque for evidence in a court of law, or hand over the cheque to the concerned customer under a proper procedure of acknowledgement and record for being produced in a court of law.

CBO shall require that only cheque images which are generated by the CBO CIS, and not other imaging systems, will be empowered with this legal recognition.

17.2 Cheque Truncation

In the near future, CBO will embark on legislation for cheque truncation in Oman. The legislation shall aim to authorize all participants to truncate the paper cheques after the cheque images have been captured and accepted by CIS for clearing and settlement.

The BFD participants shall not be required to retain the physical cheques or to transport them to the Clearing House. The participants and CBO shall solely use the electronic cheque images and cheque data for outward clearing and inward clearing processing.

These Rules will be appropriately amended as and when legality in above respects is achieved.



18. RULE 18 - TESTING, CERTIFICATION AND CHANGE CONTROL

18.1 Participant Pre-requisite

Each participant is required to perform all necessary modifications to its own systems linked to the CIS systems at its own expense, and ensure implementation and adherence to all relevant procedures as may be required.

18.2 Service Level Specification

The Central Bank may from time to time specify the service levels to be provided by CIS and determine the service levels of the participants' systems, used in relation to the CIS.

18.3 Certification Requirement

Any new Participant has to fulfill the following steps prior to connecting to the CIS before the live operations:

- a) Complete the CIS Mandatory Business Case Testing
- b) Submit the Declaration for the Participant Certification (Document to be provided separately by the Central Bank)
- c) Sign and submit the Membership Agreement for the Provision of CBO National Payment Service

18.4 Participants' Responsibility

Each participant has the following responsibilities:

- a). To develop their internal systems for linking to / from CIS and the maintenance, security and reliability (including back-up and contingency arrangements) of such systems at its own cost.
- b). To operate, administer and monitor CIS installations at the participants' site
- c). Day to day responsibility for operating its CIS equipment at participants' site, which include Application Server, Database Server, Controller PC, Operator PC and the interface between its own host system and CIS system.



18.5 Authority of Effect Change

No participant has the authority to make changes of any nature to the CIS systems or install / use any software or any part of the CIS systems without the prior written approval of the Central Bank.

18.6 Mandatory Reporting by Participant

Each participant is required to advise the Central Bank immediately of any event, which may effect its role of function as a Participant in CIS, including any known or planned disconnection from CIS, or any significant changes to its host system interface to CIS, its organization structure, or environment.

18.7 Internal operating guideline and procedure

Each participant and the Central Bank shall prepare and implement its own internal guidelines and procedures, to ensure that they are compliant with the Operating Rules laid down. Each participant shall submit a copy of such internal guidelines to the Central Bank for approval before commencing use of the CIS.

18.8 Operations by Participants

Each participant shall operate the areas of CIS, in line with its control and responsibilities, as laid down in the control documents.

18.9 Change Control

18.9.1 CIS Changes

The Central Bank is authorized to make any changes to CIS and to the Control Documents, and advise the participants accordingly, giving reasonable notice to all participants before the changes are implemented.

The Central Bank may also provide directions for the safe and timely implementation of changes and for accurate and timely up-date and distribution. Changes may also include additions and enhancements, and shall be binding on all the participants. Participants may propose changes to these operating Rules to the Central Bank, for its consideration and approval however the Central Bank shall not be obliged to implement any such change.



18.9.2 Implementation of Changes

Each participant shall ensure that its internal procedures and systems have the capability to deal effectively with all such changes to the control documents.

18.9.3 Advice of Changes

These Operating Rules are issued by the Central Bank as a control document, to named individuals of each participant, who shall also receive advice of future enhancements or updates. Each Participant is responsible for keeping the Central Bank advised of the correct contact name and address details for receiving such change advice.



19. RULE 19 - FEES AND CHARGES

The participants shall pay fees in accordance to their membership and usage of the system. CBO shall apply the following rules in the following sub-sections for calculation of fees to be charged to each individual participant.

CBO shall also apply penalty charges to individual participants in the event that the concerned participants have taken actions, which may hamper the efficiency, security or customer protection within the CIS operations. The rules for penalty charges are described in the following sub-sections.

19.1 Fees

CBO may apply any or all of the following fee types to participants for the use of CIS services:

1. **Time-interval based Transaction Fee.** A transaction unit fee shall be applied for each cheque processed by CIS. The unit fee shall be shared between the BFD participant and Pay Bank participant based on a pre-defined proportion. Different unit fees shall be applied for different time periods at which the cheques are presented. The time-based unit fee will be defined to encourage participants submit their cheques at an early possible time of the daily clearing session.
2. **Amount-interval based Transaction Fee.** Different transaction fees shall be applied for cheque values falling into different amount tiers. The unit fee shall be shared between the BFD participant and Pay Bank participant based on pre-defined proportion. The fees will be higher for high value cheques falling into the higher amount tiers. CBO shall have the right to define the amount ranges of each tier and the tariff fee for each tier.
3. **Urgency Level based Transaction Fee.** Different transaction fees shall be applied for different urgency levels selected by participants for the cheques processed by the system. The unit fee shall be shared between the BFD participant and Pay Bank participant based on a pre-defined proportion. A higher fee shall be applied for each higher urgency level of cheque.
4. **Manual Fee.** CBO reserves the right to levy a manual fee on individual participants for specific services beyond the normal operations as requested by the participants, such as request for the extension of the clearing session. The list of specific services and fee tariff shall be determined by CBO and advised to participants via circular.



5. **Membership Fee.** Each participant shall be required to pay a regular membership fee, towards sharing of CIS set up capital expenditure, for their participation as members of the CIS services. The amount of the membership fee for individual participant shall be determined by CBO based on CBO established rule.

CBO reserves the right to define or modify the above fee categories and their tariff structure. CBO shall advise the fees tariff, and any future amendment if necessary, to all participants via circular.

19.2 Penalty Charges and Other Service Fees

CBO may prescribe penalty charges and other service fees for regulating participant behavior in the system usage and recovery of out of pocket expenses for providing extra services.

19.3 Collection of Fee and Charges

Central Bank reserves the right to collect the fees and charges from participants via the RTGS system. Central Bank will advise the procedure and billing time via circular to all participants.

19.4 Detailed Policy

CBO shall prepare a detailed policy for 'Fees and Charges' and shall issue to the participants at appropriate time.



20. RULE 20 – EMERGENCY CONDITIONS

20.1 Authority

The Central Bank has the special authority to perform the appropriate action under the emergency conditions, including but not limited to the provisions of Rule 24 sub-section 24.6.

20.2 Request for Extension

Should there be a need for Extension of the CIS Service to any of the Participants, the participants must complete the following steps:

- a) Log a Call with the Help Desk
- b) Send a written request with authorized signature to the Manager, Payment Systems Department of the Central Bank by fax for authorization of the extension.

The Central Bank has the sole discretion to approve or reject the extension request. Upon extending a session, a message is broadcasted by the system to all participant banks of this event. The extension granted may be subject to levy of appropriate fee as per the policy on 'Fees and Charges'.

20.3 Session Termination

CBO may terminate a clearing session in a daily operation under emergency situation. The system shall perform the following under a situation of session termination:

- Stop accepting new cheques presented on same terminated session; cheques will be accepted upon opening of next schedule session.
- All pending cheques waiting reply will be rejected from CBO with reason "session terminated".
- All cheques which have already been replied by Pay Bank will retain the same status and be scheduled for settlement at the next available settlement session.



20.4 Failure of Clearing Settlement

In the event any Participant cannot fulfill its Clearing Settlement obligations, the Central Bank will inform the Participant accordingly. It is the responsibility of the Participant to provide the funding and complete the settlement on the value date.



21. RULE 21 - BUSINESS CONTINUITY

The Business Continuity Plan is as follows. Participant must follow the procedures as per the cases provided hereunder in the event of any of the following failures.

21.1 Case 1: Failing of the Banknet at the Participant's Site

The participant shall immediately inform the Banknet operator, Omantel, to investigate and provide an immediate resolution. This may require Omantel to provide an alternate path for connecting the participant to CIS central site, or Omantel to arrange installing a backup network equipment for the participant.

At the same time, the participant must inform CBO of the failure and the progress for resolution.

If the failure is anticipated to prolong for an extended duration, the concerned participant should arrange personnel to carry its urgent physical cheques to the CBO Clearing House. The participant shall request to use the Continuity of Business (COB) service from the Clearing House. CBO will provide COB scanners and workstations at the Clearing House. The participant shall capture the cheque images and present to CBO using the COB scanners and workstations.

21.2 Case 2: Failing of the CIS Central Site

The CIS CBO system administrator shall immediately inform all the participants of the failure via telephone, fax or emails. CBO will activate the CIS Disaster Recovery (DR) site and restart the CIS services from the DR site. CBO shall inform all participants when the services are restarted. The participants must then reconnect their CIS workstations to the DR site and resume processing.

In switching the service to the DR site, the participants must reconcile their pending cheques and replied cheques at the DR system, and if necessary, to perform re-capture of any paper cheques which are not identified in the DR system.

21.3 Case 3: Failing of the CIS Workstations or Scanners

The CIS is a fully web enabled system. In case of any CIS workstation failure, participants shall re-connect to CIS from any working workstation with the necessary configuration and web browser.



Participant shall also provision for at least one backup CIS scanner for their head office and branch. Participant shall use the backup scanner in case of a prolonged failure occurs to the primary scanner.



22. RULE 22 – DISCIPLINE

22.1 Authority

The Central Bank has the special authority to take necessary timely action on the Participants to ensure efficient operation of the CIS.

22.2 Suspension of Participant

The Central Bank shall have the sole discretion to suspend or expel a participant temporarily or permanently if it deems in its sole opinion that the participant has ceased to meet the qualifying criteria prescribed by it from time to time, or if the participant is declared insolvent or its banking license is revoked by Central Bank, or the participant fails to comply with the operating rules and regulations of CIS or any other reason deemed appropriate by the Central Bank.

22.3 Suspended Participants obligation

In the event a participant has been suspended from CIS, all its pending non-replied cheques shall be automatically rejected by the system. The suspended participant shall still be liable for settlement of all cheques which are replied by the participant for payment. The participant shall also remain liable for any other accrued and accruing obligations under the CIS Operating Rules. The Central Bank shall direct the suspended participant to surrender its rights, systems, software and any other material related to CIS.

23. RULE 23 - DEFAULT PROCESSING

23.1 Authority

The Central Bank has the authority to suspend a defaulting Participant, as per the provisions prescribed in these operating rules or as per the Banking Law.

23.2 Notification of Default

This is governed by clause number 7 of the “Agreement for the Provision of the Central Bank of Oman National Payment Systems Service” agreement document.

23.3 Participant Obligation



This is governed by clause number 8 sub section 8.2 of the “Agreement for the Provision of the Central Bank of Oman National Payment Systems Service” agreement document.



24. RULE 24 - OBLIGATION TO LAW (MISCELLANEOUS PROVISION)

24.1 Central Bank of Oman

Notwithstanding anything to the contrary stated in the CIS rules and regulations or any of the reference documents, the Central Bank and its officers, employees and/or agents shall not be liable to the Participants or any other third party for any losses and damages or expenses incurred by them directly or indirectly from any of the following:

- Delay caused due to breakdown, malfunctioning or deficiency of CIS system including hardware, software, telecommunication and electrical systems.
- Partial or complete disruption or failure of CIS to provide all or any other services provided by CIS.
- For the losses caused due to failure of the participants systems.
- The negligence, fraud, dishonesty, misconduct, unfamiliarity or omission of the participant or its official or employee in the use of CIS.

24.2 Fraud

Any loss arising due to fraud originated at the Participant's business shall be borne by the relevant Participant.

Central Bank is authorized to interrupt any transaction should Central Bank identifies any suspicion of money laundering activities or terrorism financing relating to a particular transaction.

24.3 Force Majeure

The Central Bank or any Participant shall not be liable for any losses or any non-performance of the Operating Rules or of cheque payments or of any obligation in relation to CIS arising directly or indirectly from circumstances beyond its or his reasonable control, including without limitation, strike, lockout, equipment malfunction, government action, riot and war.

24.4 Central Bank Personnel

Nothing in this rule shall prejudice the liability to the Central Bank or officers, employees or agents of the Central Bank for their acts or omissions as specified by the laws of the Sultanate of Oman.



24.5 Officers, employees and Agents

The Central Bank retains the benefit of Rule 24 subsection 24.1 and 24.2 for itself and for the benefit of its officers, employees and agents.

24.6 Emergencies

If any malfunction, breakdown, or interruption or any emergency affects CIS or its operations, transactions shall be handled in accordance with the directions of the Central Bank. Without limiting the discretion of the Central Bank, the Central Bank may extend the hours of operations of CIS or reduce, pause any Participant as provided in Section 4.9, direct the use of contingency facilities or close down CIS in whole or in part. The Central Bank shall not be liable for any directions so given.

24.7 Participants Act as Principals

Each participant shall be liable as principal in respect of its cheque payments.

24.8 Assignments

No Participant shall assign all or any of its rights or obligations under the Control Documents. The Reference Documents bind the successors of each Participant.

24.9 Dispute Settlement

In the event of any unresolved disputes or claims arising between any persons in relation to these Operating Rules or any directives issued pursuant to them, the complainant may submit the dispute or claim for investigation and decision by the Central Bank's Banking Control Department.

24.10 Governing Law

These Operating Rules are governed by the Laws of the Sultanate of Oman.



25. RULE 25 – SUPPORT SERVICES

25.1 Central Bank Payment Systems Department Help-Desk

Should there be any change the Central Bank will advise the Participant the contact number of the Payment Systems Department Help Desk via email or publishes them on the web-site of the Central Bank.

25.2 CBO Contact Details

The CBO contact details, for matters relating to CIS operations, are as follows:

- Tel. No: 24798940, 24702222 Ext 2088, 2071, 2072, 2099
- Fax: 24781782
- Email: npshelpdesk@cbo-oman.org

Should there be any change in the contact details (Telephone & Fax No & Email Address) of the Payment Systems Department Manager and the In-Charge of the CIS, Central Bank will advise the Participant via circulars, email or by publishing them on the website of the Central Bank.

25.3 Participants Contact Details

Refer to Appendix V

Should there be any change in the contact details (Telephone & Fax No & Email Address), Central Bank will advise the Participant via circulars, email or by publishing them on the website of the Central Bank.



26. APPENDICES

- Appendix I- Glossary
- Appendix II – SDK for Core Banking System Interfaces
- Appendix III – Inward Clearing File (ICL)
- Appendix IV - List of Participants Bank Numbers
- Appendix V- Participant Contact Details
- Appendix VI – List of supported Scanners

26.1 Appendix I - Glossary

Ref	Term	Definition
1.	CIS Payment System	Cheque Imaging System (CIS) is part of National Payment System being developed by the Central Bank in the Sultanate of Oman. The CIS is an electronic platform through which commercial banks shall exchange cheques payment using electronic image and data records, instead of using physical cheques paper. The CIS performs automatic clearing of cheque image and data amongst the commercial banks over scheduled clearing sessions on each business day.
2.	Access Control List	A security control to define the list of allowed users privileges which are authorized by CBO system administrator for granting to the head office and branch users of a participant. Any user of participant is not able to access to any function which is not authorized in the Access Control List.
3.	ASP – Application Service Provider	An Application Service Provider (ASP) is a centralized application system platform which offers end users from different geographic locations to access over an Extranet shared network applications and related services that would otherwise have to be located in the end users’ own personal or enterprise computers.
4.	Administrator/System Administrator	A user role established in the CIS with responsibility to perform all daily maintenance



Ref	Term	Definition
		of system parameters, participant /user/account information, business rules in order to suit operational requirements of the CIS participants.
5.	ANSI	American National Standards Institute (ANSI) is the standards setting organization which facilitates the voluntary establishment of standards for different areas, including computing.
6.	BankNet	A computer data communication network in Oman which adopts the Multi-Packet Label Switching (MPLS) technology. The BankNet is operated by Omantel and it provides services of sending/receiving multimedia information electronically amongst the participants of National Payment System exclusively.
7.	Bank of First Deposit (BFD)	The participant bank who receives a cheque deposit from a customer, and subsequently is obliged to perform clearing of the cheque on behalf of the customer, by presenting the cheque to the Central Bank Cheque Imaging System and collecting funds from the Pay Bank (see 'Pay Bank' below).
8.	Business Calendar	A calendar of operating and non-operating days holidays of a payment system.
9.	Business Hour Timetable	The details and timings of various activities to be conducted during the day in the operation of a system on a business day.
10.	Clearing Account	An account maintained by the CIS System for each participant in which debit or credit instructions are posted as and when received and validated by the system to arrive at the clearing balance.
11.	Clearing Balance	A net position of payment instructions drawn by or drawn on a member on or by other members,



Ref	Term	Definition
		accumulated up to that point of time during a business day.
12.	Clearing Cycle	Refer to Rule 4 Section 4.3
13.	Clearing House	This refers to the existing Clearing House Department of CBO, which is responsible for clearing and settlement of cheques, ATM and various Government transactions in Oman.
14.	Clearing Session	A time-bound session on which cheques to be cleared are presented and replied between the presenting participant and the paying participant bank.
15.	Clearing system	A set of procedures whereby financial institutions present and exchange data and/or documents relating to funds or transfers to other financial institutions at a single location (clearing house).
16.	Cheque Truncation	Electronic scanning and transferring of cheque images and data for clearing, which replaces the physical movement of paper-cheques between the banks and clearing houses. Subsequently the paper-cheques shall be truncated at a designated point after the cheque images and data have been accepted for processing.
17.	Clearing/clearance	The process of transmitting, reconciling and, in some cases, confirming payment orders prior to settlement, the netting of payments for calculation of final positions for settlement.
18.	Commercial Banks	The banks operating in the Sultanate of Oman and licensed by the CBO to carry on the normal banking business subject to the conditions of licensing. (Also refer to <i>Specialized Banks</i>)
19.	Customer	A private person or an institution, on whose behalf (ordering customer) or in whose account (destination customer), a payment (debit or



Ref	Term	Definition
		credit)is effected.
20.	Daily settlement	Completion of settlement on the day of value of all payments accepted for settlement.
21.	Debit Cap	A limit on a participant’s net debit position at any time of an operating day in the CIS.
22.	Debit Transfer	An instruction for debiting the designated payer’s account for the purpose of placing funds at the disposal of the issuer of instruction. While the instruction moves from the bank of the issuer/originator of the instruction, funds described therein move from the bank of the payer to the bank of issuer/originator of instruction.
23.	Decryption	The use of cryptographic algorithms to decode cipher text data into clear text which was earlier encrypted to prevent unauthorized observation. (See also <i>encryption</i>)
24.	Default	Failure to complete a funds transfer according to its terms for reasons that are not technical or temporary, usually as a result of bankruptcy. Default is usually distinguished from a “failed transaction”.
25.	Deletion	A mechanism whereby some or all transfers to/from a defaulting participant are excluded from the settlement process. In a netting scheme, either participants’ bilateral and/or multilateral net positions are recalculated.
26.	Drawer Customer	This is the issuer of the cheque which has been presented into CIS for clearing by a participant on behalf of the beneficiary of the cheque. The cheque is subsequently drawn on the drawer customer’s bank account to request transfer of funds for payment of the cheque value to the beneficiary.



Ref	Term	Definition
27.	ECCU	Electronic Cheque Clearing Unit. This is the name of the cheque imaging application system provided by the CIS vendor, Progress Soft, for implementing CIS in Oman.
28.	Encryption	The use of cryptographic algorithms to encode clear text data (plaintext) into cipher text to prevent unauthorized observation. (see also <i>decryption</i>)
29.	Failure of settlement	An event of net settlement CIS transaction which cannot be settled in the RTGS for want of adequate funds in one or more of the participant's settlement accounts in the RTGS.
30.	Field	A data element(s) for which the identification, description and value representation has been predefined. Each data element constitutes an indivisible unit. Where a field consists of more than one data element, each forms a subfield. Fields may be: . Fixed length or variable length . Mandatory or optional . Restricted in the characters that may be used. A field can appear only once in a message, unless the rules specify otherwise. Some fields consist of several subfields
31.	Final	Irrevocable and unconditional.
32.	Final settlement	Settlement which is irrevocable and unconditional. The discharge of an obligation by a transfer of funds that have become irrevocable and unconditional.
33.	Finality	Settlements in payment systems which are both unconditional and irrevocable are designated as final.
34.	Financial liability	Any liability that is a legal obligation to deliver cash or another financial instrument to another enterprise or to exchange financial instruments



Ref	Term	Definition
		with another enterprise under conditions that are potentially unfavorable.
35.	Intraday liquidity	Funds that can be accessed during the business day, usually to enable financial institutions to make payments in real time.
36.	Inward Clearing	Inward clearing for a bank, represents the cheques forwarded by various Banks of First Deposit (BFD), drawn on it for payment and cheques which were presented by it as BFD but have been returned by System or rejected by Pay Bank.
37.	Key	A unique series of digits used in combination with a cryptographic algorithm.
38.	Key length	The number of bits comprising an encryption key.
39.	Liability	A present obligation of the enterprise arising from past events, the settlement of which is expected to result in an outflow from the enterprise of resources embodying economic benefits.
40.	Liquidity	State of availability of funds and arrangements there for, vis-à-vis a settlement obligation, in the settlement account of a participant.
41.	Liquidity risk	The risk that a counter party (or participant in a settlement system) will not settle an obligation for full value when due. Liquidity risk does not imply that a counter party or participant is insolvent since it may be able to settle the required debit obligations at some unspecified time thereafter.
42.	MICR	MICR (Magnetic Ink Character Recognition), as defined by the American National Standards Institute (ANSI), is a technology used to verify the legitimacy or originality of paper documents, especially cheque. Special ink, which is sensitive to magnetic fields, is used in



Ref	Term	Definition
		the printing of certain characters on the original documents. Information can be encoded in the magnetic characters. The use of MICR can enhance security against forged or counterfeit document. If a document has been forged - for example, a counterfeit cheque produced using a colour photocopying machine, the magnetic-ink line will either not respond to magnetic fields, or will produce an incorrect code when scanned using a device designed to recover the information in the magnetic characters.
43.	Membership	Membership is a process whereby a prospective participant of a clearing and settlement system is evaluated on application on an eligibility criteria and allowed access to such a system if found eligible subject to compliance with the discipline prescribed in this behalf.
44.	National Payment System	Payment System existing and being developed/established in the Sultanate of Oman by the Central Bank. (Please also see Payment System)
45.	Net Clearing Position (NCP)	A participant's net credit or net debit position in a netting system is the sum of the value of all the transfers it has received up to a particular point in time less the value of all transfers it has sent. If the difference is positive, the participant is in a net credit position; if the difference is negative, the participant is in a net debit position. The net credit or net debit position at settlement time is called the net settlement position. These net positions may be calculated on a bilateral or multilateral basis (see also <i>net settlement, net settlement system</i>).
46.	Net settlement	The settlement of a number of obligations or transfers between or among counterparties on a net basis. See also <i>Netting</i> .
47.	Netting	An agreed setoff of mutual positions or



Ref	Term	Definition
		liabilities between business partners or participants in a payment system. Netting reduces a large number of individual positions or liabilities to a smaller number of positions or liabilities. Netting can take different forms; these claims are legally enforceable to a varying extent in case of default by a participant (see also <i>multilateral netting</i>).
48.	Obligation	A duty imposed by contract or law.
49.	Outward Clearing	Outward clearing for a bank, represents the cheques forwarded by it as BFD to various Pay Banks for payment and cheques which were presented by other banks as BFD on it but have been returned by System or rejected by it.
50.	Participant	A party, which is regularly involved with handling cheques payments, and has sought a membership or authorization from the Central Bank to participate in the daily cheques clearing and settlement activities operated by the Central Bank for National Payment System. (See also RULE 2.1)
51.	Pay Bank	The participant bank which is the issuing bank of cheques being presented from the BFD to CIS for clearing processing. The Pay Bank is obliged to receive these cheques as issued by their customers and to perform clearing authorization, and settlement, of the cheque payment on behalf of their issuer customers.
52.	Payee	The beneficiary party of a cheque as identified in the favour of payment information on the cheque of which the cheque issuer is liable to pay the cheque value amount.
53.	Payer	The issuer of a cheque who shall be liable to make payment for the value of the cheque, when the cheque is duly presented and drawn on the issuer's bank.
54.	Payment	An order or message to transfer funds (in the



Ref	Term	Definition
	message/instruction/order	form of a monetary claim on a party) to the account of the beneficiary. The order may relate either to a credit transfer or to a debit transfer.
55.	Payment system	A payment system consists of a set of instruments, banking procedures and, typically, inter-bank funds transfer systems that ensure the circulation of money.
56.	Positive Pay Cheques	These are usually the cheques which do not require detailed technical or financial scrutiny since these have been issued through or by Pay Bank on its own behalf (e.g. Bankers' cheques, pay order) or on behalf its customers and prior arrangements of funds have been made for payment.
57.	Post Dated Cheque	It is a cheque with a future date entered such that the cheque cannot be valued until that date is reached.
58.	Protocol	Procedures for the interchange of electronic messages between communicating devices.
59.	Queuing	A risk management arrangement whereby transfer orders are held pending by the originator/deliverer or by the system until sufficient cover is available in the originator's/deliverer's clearing account or under the limits set against the payer; in some cases, cover may include unused credit lines or available collateral. See also <i>Caps</i> .
60.	Receiver	The participant receiving a message as identified by its registered address in the header of the message.
61.	Repurchase agreement or REPO	An agreement with a commitment by the seller to buy a security back from the purchaser at a specified price at a designated future date.
62.	Request	Message sent to CIS to receive answer on status of the file/batch/individual transaction, etc.



Ref	Term	Definition
63.	RTGS	Real Time Gross Settlement System. This is the settlement system being used for settlement of any interbank payment on real time and gross level basis, as part of National Payment System in Oman
64.	Security	In relation to a Payment System, it involves protection from unauthorized physical as well logical access to the systems, live and stored data and data in transmission.
65.	Settlement Agent	A participant in the Payment System which undertakes to settle the obligations of another participant through its own settlement account in a Payment System.
66.	Specialized Banks	The banks operating in the Sultanate of Oman and licensed by the CBO to carry on the select banking business subject to the conditions of licensing. (Also refer to <i>Commercial Banks</i>)
67.	Server	A computer that provides services through a network to other computers.
68.	Settlement	The actual fulfillment of the clearing obligations, i.e. the transfer of the banks with net debit position to the banks with net credit position is called settlement. This transfer is carried out via a central counterparty.
69.	Settlement account	An account held by a direct participant in a CBO RTGS system for the purpose of processing payments.
70.	Settlement date	The date on which the parties to funds transfer transaction agree that settlement is to take place. The intended date is sometimes referred to as the contractual settlement date.
71.	Settlement risk	A general term used to designate the risk that settlement in a transfer system will not take place as expected. This risk may comprise both credit and liquidity risks (see also credit risk/exposure, liquidity risk,



Ref	Term	Definition
72.	Settlement system	A system used to facilitate the settlement of transfers of funds or financial instruments.
73.	Systemic risk	The risk that the failure of one participant in a transfer system, or in financial markets generally, to meet its required obligations will cause other participants or financial institutions to be unable to meet their obligations (including settlement obligations in a transfer system) when due. Such a failure may cause significant liquidity or credit problems and, as a result, might threaten the stability of financial markets.
74.	Transaction Reference Number	This field specifies the reference assigned by the Sender to unambiguously identify the message.
75.	Transfer	Operationally, the sending (or movement) of funds or securities or of a right relating to funds or securities from one party to another party by (i) conveyance of physical instruments/money; (ii) accounting entries on the books of a financial intermediary; or (iii) accounting entries processed through a funds and/or securities transfer system. The act of transfer affects the legal rights of the transferor, transferee and possibly third parties in relation to the money balance, security or other financial instrument being transferred.
76.	Value Date	Day on which a payment is due to be credited to the Payee customer of a cheque payment instruction.
77.	XML	Extensive Markup Language, which is a standard for describing data information by computer application software in a way which will facilitate exchange or sharing of information between different computer systems. It is a formal recommendation from the World Wide Web Consortium (W3C), and is similar to the HTML language of Web pages.



Ref	Term	Definition
		Like HTML. XML contains markup symbols to describe the contents of data information.



26.2 Appendix II - SDK for CIS Core Banking System Interfaces

SDK is Software Development Kit provided for participants for developing system interface of their Core Banking System to CIS.

The CIS shall handle communication between ECC system and participant’s core banking systems through web services and XML formatted messages.

The system shall exchange messages in a synchronous manner.

The system shall exchange messages through two interface functions provided by PS-ECC:

Function: String Result = ECCSDK(String Request)

26.2.1 Checkout

The system shall exchange the following messages with the banking system to list the cheques in the inward or outward clearing cycles

26.2.1.1 Request Message

The request message shall have the following format:

```
<?xml version="1.0" encoding="utf-8"?>
<Root>
  <header>
    <BankCD></BankCD>
    <Password></password>
    <MessageType></MessageType>
    <Queue></Queue>
    <Count></Count>
  </header>
</Root>
```

Elements Description

Element Name	Description	Remarks
Root	The root element for the message	
Header	Header element for the message header	
BankCD	The bank code	



Password	The bank password hashed using MD5 hashing algorithm	
MessageType	1: Check Out Request	Fixed to the value 1 for the check out request
Queue	1 – Outward Presentment 2 – Outward Reply 3 – Inward Initial Posting 4 – Inward Final Posting	
Count	The number of cheques the bank is interested in checking out	The maximum valid value for count of check out cheques is '100' cheques

26.2.1.2 Response Message

The response message shall have the following format:

```
<?xml version="1.0" encoding="utf-8"?>
<Root>
  <header>
    <BankCD/> <Password/>

    <MessageType></MessageType>
    <Queue></Queue>
    <Count></Count>
    <ResponseStatus></ResponseStatus>

  </header>
  <Records>
    <Record>
      <CheckSequence></CheckSequence>
      <CheckSerial></CheckSerial>
    </Record>
  </Records>
  <CheckDate></CheckDate>
  <CheckClearingDate></CheckClearingDate>
  <CheckProcessingDate></CheckProcessingDate>
  <PayAccountNumber></PayAccountNumber>
  <BFDAccountNumber></BFDAccountNumber>
  <PayBranchCode></PayBranchCode>
  <BFDBranchCode></BFDBranchCode>
</Root>
```



```
<BFDBankCode></BFDBankCode>  
<PayBankCode></PayBankCode>  
<CheckAmount></CheckAmount>  
<CurrencyCode></CurrencyCode>  
<ReasonCode></ReasonCode>  
</Record>  
</Records>  
</Root>
```

Elements Description

Element Name	Description	Remarks
Root	The root element for the message	
Header	Header element for the message header	
MessageType	3: Check Out Response	Fixed to the value 3 for the check out response
Queue	1 – Outward Presentment 2 – Outward Reply 3 – Inward Initial Posting 4 – Inward Final Posting	
Count	The number of cheques in the response message	The maximum valid value for count of check in cheques is '100' cheques
Records	Starts the list of found cheques records	
Record	Represents one cheque record, repeated for each found cheque	
CheckSequence	15 digits Unique Record ID for the cheque which shall be generated at ECC, to avoid the duplicate requests.	
CheckSerial	Cheque's serial no, 13 characters length	
CheckDate	12 The date that appears on the cheque In format: DDMMYYYYHHMMSS DDMMYYYY000000	
CheckClearingDate	12 The presentment date In format: DDMMYYYYHHMMSS DDMMYYYY000000	
CheckProcessingDate	12 The processing date (The value date in case of outward presentment)	



	In format: DDMMYYYYHHMMSS DDMMYYYY000000	
PayAccountNumber	Pay Account Number with the 14 characters length	
BFDAccountNumber	Beneficiary Account Number with the 34 characters length	
PayBranchCode	4 digits Pay Transaction Branch Code	
BFDBranchCode	4 digits Beneficiary Transaction Branch Code	
CurrencyCode	Currency code with the 3 characters length	
CheckAmount	(15) Cheque Amount	
BFDBankCode	4 digits bank code of the BFD (Bank of first deposit)	
CurrencyCode	4 digits Pay Bank code	
PayBankCode	Currency code with the 3 characters length	
ReasonCode	3 digits ECC reason code, When the Queue is 1 this field shall be -1.	

26.2.2 Check-In

The system shall exchange the following messages with the banking system when the bank checks in the checks that it previously checked out

26.2.2.1 Request Message

The check in request message shall have the following format:

```
<?xml version="1.0" encoding="utf-8"?>
<Root>
  <header>
    <BankCD></BankCD>
    <Password></password>
    <MessageType></MessageType>
    <Queue></Queue>
    <Count></Count>
  </header>
  <Records>
    <Record>
      <CheckSequence></CheckSequence>
      <ReasonCode></ReasonCode>
      <Action></Action>
      <Status></Status>
```



</Record>
</Records>
</Root>

Element Description

Element Name	Description	Remarks
Root	The root element for the message	
Header	Header element for the message header	
BankCD	The bank code	
Password	The bank password hashed using MD5 hashing algorithm	
MessageType	2: Check In Request	Fixed to the value 2 for the check in request
Queue	1 – Outward Presentment 2 – Outward Reply 3 – Inward Initial Posting 4 – Inward Final Posting	
Count	The number of checks the bank is interested in checking In	
Record	Represents one cheque record	
CheckSequence	15 digits Unique Record ID for the cheque which shall be generated at ECC, to avoid the duplicate requests.	
ReasonCode	One of the standard ECC Reason codes, which is maintained at ECC, in case the Queue is 1, 2 or 4 the ReasonCode shall be -1 . The reason code shall only be set in case of inward initial posting (Queue = 3).	
Action	Represents the route of the cheque in case of initial posting cheques check in It holds any of the following values 1 – Technical Clearing 2 – Clearing Approval 3 – CIS For check in requests other than Initial Posting (Queue = 3) this field shall hold the value: 4 – Not initial Posting cheque.	



Status	Represents the status of the operation. It holds any of the following single character values S – Success (Transaction processed successfully by banking interface) F – Failed (Transaction failed to be processed by banking interface)	
--------	--	--

26.2.2.2 Response Message

The response message shall have the following format:

```
<?xml version="1.0" encoding="utf-8"?>
<Root>
  <header>
    <BankCD/> <Password/>
    <MessageType></MessageType>
    <Queue></Queue>
    <Count></Count>
    <ResponseStatus></ResponseStatus>
  </header>
  <Records>
    <Record>
      <CheckSequence></CheckSequence>
      <CheckStatus></ChequeStatus>
    </Record>
  </Records>
</Root>
```

Element Description

Element Name	Description	Remarks
Root	The root element for the message	
Header	Header element for the message header	
MessageType	4: Check In Response	Fixed to the value 4 for the check in response
Queue	1 – Outward Presentment 2 – Outward Reply 3 – Inward Initial Posting 4 – Inward Final Posting	



Count	The number of cheques processed	
CheckSequence	15 digits Unique Record ID for the cheque which shall be generated at ECC, to avoid the duplicate requests.	
CheckStatus	Contains the values: F: Fail, S: Success, N: Not checked out, P: already Posted.	



26.3 Appendix III – Inward Clearing List (ICL) File Specification

The following are the specifications for Inward Clearing List (ICL) file:

The Filename is (XX_DD-MM-YY_12-00-00_ICL) where :

- XX = drawn on bank identifier
- DD-MM-YY = clearing date
- ICL = file type "ICL"

The content of the file comprises the following records:

1. Run Control Document Record

R/RECEIVING BANK ID/NO.OF BATCHES/RUN TOTAL AMOUNT

Fields:

- A) 1 digit document type = "R"
- B) 2 digit bank ID
- C) 4 digit number of batches
- D) 25 digit total amount

2. Batch Control Document Record

B/PRESENTING BANK CODE /BATCH SERIAL NO./NO OF CHEQUES/BATCH TOTAL AMOUNT/

Fields:

- A) 1 digit document type = "B"
- B) 2 digit bank code(presenting bank code FOR "C" records),(pay bank code For "I" or "X" records)
- C) 4 digit batch serial number
- D) 3 digit number of cheques in batches
- E) 25 digit batch total amount

3. Cheque Record

C/CHEQUE NO/BANK/BRANCH/ACCOUNT NUMBER/CHEQUE AMOUNT/

Fields:

- A) 1 digit record type = "C"
- B) 8 digit cheque serial number
- C) 2 digit pay bank code
- D) 4 digit pay branch code



- E) 14 digit account number
- F) 20 digit cheque amount

4. Return Cheque Record

X/CHEQUE NO/BANK/BRANCH/ACCOUNT NUMBER/CHEQUE AMOUNT/RETURN REASON CODE/

Fields:

- A) 1 digit record type = "X"
- B) 8 digit cheque serial number
- C) 2 digit pay bank code
- D) 4 digit pay branch code
- E) 14 digit account number
- F) 20 digit total amount
- G) 2 digit return reason code

5. Invalid Return Cheque Record

I/CHEQUE NO/BANK/BRANCH/ACCOUNT NUMBER/CHEQUE AMOUNT/RETURN REASON CODE/

Fields:

- A) 1 digit record type = "I"
- B) 8 digit cheque serial number
- C) 2 digit pay bank code
- D) 4 digit pay branch code
- E) 14 digit account number
- F) 20 digit total amount
- G) 2 digit return reason code

Participants shall note the following:

1. Participant can generate the ICL file at any time and as many times as necessary from the system. The CIS system will include all cheques from previous generation to the new generation time and mark them as processed. In any new ICL generation, those cheques won't appear. Furthermore, bank user can delete last ICL save-point of current date and regenerate them in one comprehensive file.
2. This above filename is only the default naming of the system; during file generation, system allows user to select any file name specified by the user (similar to download a file from e-mail). The user can save his ICL with different timestamp for each file generation to distinguish ICL files generated at different times.



26.4 Appendix IV – List of Participants’ Bank Number

Participant Name	Bank No.	Short Name
1. Ahli Bank	31	ALAHIB
2. Bank Melli Iran	7	BMI
3. Bank Muscat	27	BMCT
4. Bank Dhofar	25	BDAF
5. Bank of Baroda	3	BOB
6. Bank Beirut	29	BBEIRUT
7. Bank Saderat Iran	8	BSI
8. Bank Sohar	30	BSOHAR
9. Habib Bank Limited	16	HBL
10. HSBC Bank Middle East	10	HSBC
11. National Bank of Abu Dhabi	17	NBADH
12. National Bank of Oman	18	NBO
13. Oman Arab Bank	2	OAB
14. Oman Housing Bank	??	OHB
15. Oman International Bank	19	OIB
16. Qatar National Bank	32	QNB
17. State Bank of India	28	SBOI
18. Standard Chartered Bank	11	SCB



26.5 Appendix V – CBO Contact Details

Name	Designation	Number
Mr. Jamal Taha Al-Raisi	Manager, Payment Department	24779021
Ms. Aqeela Al-Abri	In-Charge, CIS System	
	CIS Assistant Operations Officer	
Help Desk		24701688 24700102 24702222 Ext 2024, 2025, 2026, 2027 Fax: 24781782 Email:npshelpdesk@cbo- oman.org



26.6 Appendix VI - List of Supported Cheque Scanners

The following is the list of scanners supported for operations in CIS:

Scanner Brand	Models supported by CIS
Panini	Vision X(SD, VX, AGP,P) Series
EPSON	Model TM-S 1000
Digital Check	Models TS200, TS210, TS220, TS220E, TS230, TS300,TS350,TS400
Canon	Model CR180
NCR	Models TS230, TS300, TS350

Participants are recommended to install cheque scanners which are in the above supported list.

If any participant intends to install any other brand or model of cheque scanner which is NOT in the above list, the participant MUST inform CBO to seek approval and certification of the specific scanner. The participant MUST inform CBO well in advance and advise details of the vendor company, contact person and the model specification of the specific scanner. CBO will arrange the CIS vendor to contact the scanner's vendor and conduct a certification test for the specific scanner. The specific scanner MUST successfully pass CIS vendor's certification prior to CBO's approval for inclusion in the supported scanners list.