SSSS(Membership) Business Operating Guidelines, 2007

Chapter 1
Introduction

1. This Scripless Securities Settlement System (hereinafter referred to as the "SSSS" or "SSS system") is set up, operated and maintained by the Central Bank of Bahrain (hereinafter referred to either as the "CBB" or "the Bank"). The Bank will be the Administrator and Operator of the SSS system. The Bank will be the SSSS Service Provider. The SSSS will function from the Bank's premises or as decided by the Bank.

2. The Bank is implementing a Real Time Gross Settlement (RTGS) System also over the SWIFT Network for facilitating real time on-line processing and settlement of inter-bank payments. The SSS system and the RTGS system will be seamlessly integrated, facilitating payment & settlement of the fund leg of the securities transactions and grant of Intra-day Credit against securities as collateral and reversal thereof.

3. This SSS system will be for the entire Kingdom of Bahrain and all the securities transactions such Auction, Inter-bank Repo, Islamic Repo, Sale & Purchase, House Transfer, When Issue, Free of Payment (FOP) etc., involving treasury bills and government securities (both Conventional & Islamic), will be submitted to the SSS system for processing and settlement. The SSS system will start processing the securities transactions such as the Islamic Repo, Sale & Purchase, When Issue and Free of Payment (FOP), as and when decided by the Bank. The Bank's decision will be final.

4. The SSS system will be implemented over the SWIFT IP Network as the communication backbone. It will be connected to the SWIFT Network through the SWIFT Alliance Gateway Server at the Bank's site. The SWIFT Alliance Gateway Server at the Bank's Site will provide a gateway to the SWIFT Alliance Access Server at the Bank's site which will handle the SWIFT FIN service (for securities transaction messages) and FIN Y-Copy Service (RTGS payment transaction messages), sent by the members. The Web Server at the CBB will be used for performing enquiry, queue management, database maintenance and system parameter maintenance functions.

5. Each SSSS member will be responsible for infrastructural readiness including SWIFT requirements (hardware, software, networking and other products etc.) at its end for participation in the SSS system. The SSSS members will use the SWIFT IP network as the communication network to route securities transactions and enquiries, using SWIFTAlliance suite of products.

6. Each SSSS member will need to deploy a redundant set of the SWIFTAlliance hardware, software, networking and other products at a remote location (other than the primary site) to meet disaster recovery requirements, as per its Information System (IS) Security Policy and Information System (IS) Audit Policy. Each SSSS member will need to take daily system/data back-up, as per its Back-up &

Recovery Policy and restore the same on the Disaster Recovery System off-line/on-line.

7. The Bank may decide to implement the SSS system on some other network also in the future and each SSSS member will comply with all the related requirements at its cost and responsibility for participation in the SSS system.

8. Unless specifically mentioned otherwise, the 'time', mentioned in this document, will mean and include Bahrain Standard Time and all 'amounts', mentioned in this document, will be either in Bahraini Dinar or in US Dollar, as applicable.

9. The SSS System will be capable of processing and settling the SSS transactions both in Bahraini Dinar (BHD) and US Dollar (USD) and in any other currency, as decided by the Bank.

10. The Time Stamps, affixed by the SSS System on the transactions and events, will be the applicable time stamps involving the CBB and the SSSS members for all matters relating to the SSS System.

11. The SSS System will have 'V' Copy topology. All the SSSS transactions, sent by a member, will come to the SSS System over SWIFTNet (i.e. over the SWIFTNet and through the Closed User Group/s (CUG/s), created over the SWIFTNet for the SSSS members). Similarly, all the messages/notifications including the settlement notifications, sent by the SSS system to the members, will go over the SWIFTNet and through the above CUG/s.

12. The SSS system will use defined SWIFT payment messages. Any other message/s, used by the SSS system, will also be defined ones and on the lines of the SWIFT messages.

13. In terms of using the FIN messaging services/INterAct and Browse services, the messages and the instructions will be interpreted according to SWIFT standards, SSS System specific conventions, as set out in the SWIFT Standards Handbooks and the SSSS functional specifications (i.e. detailed SSSS business requirements for design and development of the SSS system, as agreed between the Bank & the Solution Provider).

14. Every SSSS Type 'A' member will exchange its SWIFT BKE (keys) with the Bank (i.e. the Central Institution Destination) in accordance with the terms and conditions, as determined by the Bank and the relevant SWIFT procedures.

15. **These Operating Guidelines will be called the Scripless Securities Settlement System Business Operating Guidelines, 2007 and will come into force from the date and time, as decided by the Bank and will be fully complied with by all the SSSS Members.**

Chapter 2
SSSS Membership Type

1. Entities in the banking and financial sector in the Kingdom of Bahrain, on being granted SSSS membership, will each be assigned a membership type. Until notified otherwise, the SSSS members will fall into the following two membership types :

   a) **Membership Type 'A'** : The Bank, all the "retail banks" and other Financial Institutions, which have securities accounts with the Directorate of Banking Services of the Bank (i.e. in the CBS System), participate in government securities transactions and have SWIFT membership, will be eligible for Membership Type 'A'. All such SSSS members will require to have the infrastructural facilities, as specified by the Bank from time to time, to continue to be eligible for participation in the SSS System. Such members will participate in the SSS system on-line. Such members will be called the Direct SSSS Members.

   b) **Membership Type 'B'** : All the "retail banks" and other Financial Institutions, which have securities accounts with the Directorate of Banking Services of the Bank (i.e. in the CBS System), participate in government securities transactions but do not have SWIFT membership, will be eligible for Membership Type 'B'. Such members will participate in the SSS system off-line i.e. through the Bank. Such members will be called the Indirect SSS Members.

2. The Direct SSSS members will have SWIFT connectivity and therefore, will access the SSSS functionalities on-line. They will have securities accounts in the SSS system. They will be able to send/receive securities transactions and submit/receive statements/reports from SWIFT CBT to the SSS system. They will also be able to submit bid transactions, receive alerts/broadcasts, enquiry requests, view enquiry results, perform queue management and download reports from the SSSS web browser.

3. The Indirect SSSS members will not have SWIFT connectivity and therefore, will not have on-line access to the SSSS functionalities. However, they will have securities accounts in the SSS system. The Indirect SSSS members will submit requests via telephone, fax or other offline means to the Bank, who will execute the SSSS transaction requests or enquiry requests on behalf of these members.

4. The SSSS members will be identified through their member code in the SSS system. For members who are SWIFT members, their member codes will be the SWIFT Bank Identification Codes (BICs).

5. Both the Direct and Indirect SSSS members will either be conventional institutions or Islamic institutions. The conventional institutions are allowed to hold any type of securities, whereas the Islamic institutions can hold only Islamic securities. The Bank will be able to hold both the conventional and Islamic securities.

6. The Direct Members, once they become active in the SSS system, cannot be converted into Indirect Members and vice versa. In the event where an Indirect Member meets the pre-requisites for Direct Membership, the Bank may create a new member record in the SSS system.

7. An SSSS member, which is a conventional institution, can be converted in to an Islamic institution and vice versa. The conversion will be executed in the SSS system at the End of Day (EOD), as a part of batch processing and be effective the next working day. The following conditions will have to be met before the SSS system allows the member to be converted.

   a) The member must dispose of all conventional securities under its holdings. The member should transfer all the conventional securities to other member/s.
   b) The member must not have outstanding transactions (i.e. no future-dated transactions and/or closing leg of the repo transactions) for any conventional securities.
   c) The member cannot be involved in any active auction (i.e. the member or the Bank should cancel those pending auction bids).

7. **In addition to being the Service Provider, the Bank will also participate in the SSS System as a type 'A' member.**

Chapter 3
Communication/Connectivity with the SSS System

1. **Communication Network :** The SSS System will use the SWIFT network to connect the SWIFT Computer based Terminal (CBT) of the SSSS member to the SSS system.

2. The member will, at its own expense, install, maintain, operate and upgrade one or more SWIFT CBTs, which will allow the member to perform functions such as message processing, queue management, on-line enquiry, report downloading, user administration etc..

3. **Message Processing :** The SWIFT CBT will provide the facility for the creation, transmission, confirmation and cancellation of the messages to enable the members to execute or cancel transactions.

4. **Message Formats :** Every member will submit messages according to the SWIFT formats and conventions, as set out in the SSSS functional specifications (i.e. business requirements in detail constituting the base for the design and development of the SSS system).

5. **On-line Enquiry :** The members may access on-line information, send query into the SSS System through SWIFTNet Browse and INterActive services, provided by SWIFT. The members will obtain access to SWIFTNet Browse and INterActive services at their own cost and responsibility. The Bank will determine the availability of 'on-line information' for enquiry by the members.

6. **User Administration :** The Bank will create two default administrators for each member. These administrators will be responsible for creating and deleting the users for their respective institutions, who will be authorized to perform payment request transactions, access the on-line query and/or reports downloading. These two administrators will also define and maintain the user profiles and rights to access provided.

7. Each Type 'A' member will subscribe to the relevant SSSS Closed User Group (CUG) with SWIFT. The member will communicate to the Bank its SWIFT Bank Identification Code (BIC), to be used for the SSS system.

(Each Type 'A' member will maintain the necessary SWIFT network connectivity and operate the relevant SWIFT facilities to participate in the SSS system.)

Chapter 4

SSSS Account Types

1. The Direct members will have Trade, Customer, Non-Resident and Intra-day Credit accounts, as defined below.   The Indirect members will have Trade accounts only. The Bank will have the Trade and Intraday Credit accounts only.

    a. **Trade Account :** This account will record the detailed holdings of the securities under the Bank's and the member's ownership.

    b. **Customer Account :** This account will record the detailed holdings of the securities for the Direct member's resident customers, as its constituents.

    c. **Non-Resident Account :** This account will record the detailed holdings of the securities for the Direct member's non-resident customers, as its constituents.

    d. **Intra-day Credit Account (IDC Account) :** The Direct member's IDC account will record the securities that will be available for collateralisation under the Intra-day Credit arrangement. The Bank's IDC account will record the detailed holdings of the securities, pledged by the Direct member under the Intra-day Credit arrangement. The securities that are utilised by the Direct member for Intra-day Credit will be transferred from its IDC account to the Bank's IDC account. Upon reversal of Intraday Credit before the end of day of the RTGS system, these securities will be transferred from the Bank's IDC account back to the Direct member's IDC account.

2. Only securities from the Direct member's Trade account can be transferred into its Intraday Credit account and vice versa.

3. The member's securities in its Trade, Customer and Non-Resident accounts can be used for trading in the secondary market (i.e.Sale & Purchase securities transactions). The securities in the IDC account will be used for providing intra-

day credit to the member. Such securities cannot be used for trading unless they are transferred out of the IDC account to the Trade account.

4. The coupon/return payment and discounted amount of the securities for the Non-Resident account will be subject to a withholding tax, as decided by the Bank. The Bank's decision on this will be final.

5. The securities in each of the custody accounts in the SSS system will be denominated either in Bahraini Dinar and/or US Dollar or a new currency, as decided by the Bank. The information that will be provided for each securities account will include :

   a) ISIN (International Securities Identification Numbering) code
   b) Custody code
   c) Opening nominal amount
   d) Total settled credit count
   e) Total settled credit nominal amount
   f) Total settled debit count
   g) Total settled debit nominal amount
   h) Current nominal amount
   i) Total earmarked debit count (i.e. transactions held awaiting funds settlement confirmation from the RTGS System).
   j) Total earmarked debit nominal amount (i.e. amount held awaiting funds settlement confirmation from the RTGS System).
   k) Total earmarked credit count (i.e. transactions held awaiting funds settlement confirmation from the RTGS System).
   l) Total earmarked credit nominal amount (i.e. amount held awaiting funds settlement confirmation from the RTGS System.
   m) Total held debit count as a result of the matched Islamic Repo Opening transactions between the member and the Market Maker, awaiting second level matching with the corresponding Islamic Repo Opening transactions between the Market Maker and the Bank.
   n) Total held debit nominal amount as a result of the matched Islamic Repo Opening transactions between the member and the Market Maker, awaiting second level matching with the corresponding Islamic Repo Opening transactions between the Market Maker and the Bank.
   o) Available nominal amount
   p) Total queued credit count due to insufficient securities
   q) Total queued credit nominal amount due to insufficient securities
   r) Total queued debit count due to insufficient securities
   s) Total queued debit nominal amount due to insufficient securities
   t) Total future-dated transactions credit count
   u) Total future-dated transactions nominal amount
   v) Total future-dated transactions debit count
   w) Total future-dated transactions debit nominal amount
   x) Projected nominal amount

6. The End-of-day (EOD) statements will be sent to the Direct members and the Bank for all custody accounts that have holdings and/or transactional activity for the value date. The EOD statements for the Indirect members will be sent to the Bank.

Chapter 5
SSSS Transaction Types

1. The SSS System will support the following transaction types:

    a. Bid Transactions
    b. Securities Allotment
    c. "When Issue" Transactions
    d. Deliver versus Payment (DvP) and Receive versus Payment (RvP) Transactions (i.e. Sales and Purchases)
    e. Islamic Repo Transactions
    f. Free of Payment (FoP) Transfer Transactions
    g. House Transfer Transactions
    h. Inter-bank Repo Transactions
    i. Intra-day Credit Transactions
    j. Securities Coupon/Return Payment Transactions
    k. Securities Redemption Transactions
    l. Queue Management Transactions
    m. Cancellation Transactions (trading in secondary market)

Chapter 6
SSSS Transaction Processing

1. The Direct member will be eligible to submit the following transactions via its FIN CBT:
    a) "When Issue" transactions
    b) Deliver versus Payment (DvP) and Receive versus Payment (RvP) transactions (i.e. Sales and Purchases)
    c) Islamic Repo transactions
    d) Free of Payment (FOP) transfers
    e) House Transfers
    f) Inter-bank Repo transactions
    g) Cancellation transactions

2. The Direct member will be eligible to submit the following transactions via the SSS web browser:
    a) Bid Transactions
    b) Transaction Queues (Queue Adjustment)

3. The SSS system will generate the following transactions :

a) Intraday Credit transactions
b) Securities Allotment
c) Securities Coupon/Return Payment
d) Securities Redemption

4. A unique system reference number will be assigned to all the transactions received/sent by the SSS system. This reference number will be termed as the SSS Reference Number. It will be a concatentate field of the system name represented by a letter "S", the system date expressed in YYYYMMDD, and a 7-digit running sequence number (i.e. S20060924000001).

5. The SSS system will adopt the DvP1 model for securities settlement under the Online Payment Mode [i.e. system that settles transfer instructions both for the securities and funds on a trade-by-trade (gross) basis, with final (unconditional) transfer of securities from the seller to the buyer (delivery) occurring at the same time as the final transfer of funds from the buyer to the seller (payment)].

6. The SSS system will accept future-dated transactions (except for Cancellation Transactions) from the members up to seven (7) calendar days (excluding the day of submission), as decided by the Bank. However, the settlement date will have to be an SSSS working day. Otherwise, the SSS system will reject such transactions. The Bank may change the number of days for the future-dated transactions at its sole discretion. The Bank's decision on this will be final.

7. Each securities transaction will be processed as a whole. There will be no partially settled transactions.

8. The following types of transactions will require matching:

    a. Deliver versus Payment (DvP) and Receive versus Payment (RvP) transactions
    b. Free of Payment (FOP) transfers
    c. "When Issue" transactions
    d. Inter-bank Repo transactions
    e. Islamic Repo transactions
    f. Cancellation transactions (transactions that have been matched in the SSS system)

9. The Bank may specify the matching tolerance limit for the settlement amounts for the following types of transactions:

    a) Deliver versus Payment (DvP) and Receive versus Payment (RvP) transactions
    b) When Issue transactions
    c) Inter-bank Repo transactions
    d) Islamic Repo transactions

(For the repo transactions, the tolerance limit will apply to both the opening and closing amounts.)

Chapter 7
SSSS Transaction Processing Requirements

1. The SSS system will support the following categories of securities, which can be denominated either in BHD or in USD. The transaction settlement amounts will be processed and settled in their corresponding currency according to the payment mode, defined for each member.

    a. Bonds
    b. Treasury Bills
    c. Sukuk Al Salam (Islamic Securities)
    d. Ijara Sukuk – Short Term (Islamic Securities)
    e. Ijara Sukuk – Long Term (Islamic Securities)

2. Under each ISIN type, there can be any number of securities created. Each ISIN will have the following status:

    - "Inactive"   Newly-created securities which have not undergone the allotment process.
    - "Active"   Securities which have been allotted to the individual participants.
    - "Suspended"   Securities which have been suspended from settlement.
    - "Redeemed"   Securities which have undergone full redemption at maturity.

3. The Bank may change the status of the ISIN (active or suspended), once it is issued. The members will be informed of the change via a screen alert (for Direct members) and an email alert (for Indirect members). The Direct members may specify the list of users, who will receive the screen alerts. For the Indirect members, the e-mail alert will be sent to the email address, specified for the member record. Once the ISIN is suspended, the members will not be allowed to use it for any transactions except for :

    a. FOP transactions involving the Bank (i.e. counterparty must be the Bank's member code)
    b. Inter-bank Repo Closing transactions
    c. Islamic Repo Closing transactions
    d. Intra-day Credit Closing transactions
    e. Inter-bank Repo Overnight Loan Sale transactions
    f. Redemption
    g. Coupon/Return payment
    h. Securities transactions for the suspended ISIN, pending due to insufficient securities, will still be retained. However, if the ISIN is still suspended

when the transaction is processed for settlement, the transaction will be rejected.

    i. Future-dated SSSS transactions, received and processed by the SSSS prior to suspension, will be retained. However, on the value date, the transaction will be rejected, if the ISIN is still suspended.

4. The members will be provided with two (2) options of securities payment mode for every corresponding currency :

    a. <u>Online Payment Mode</u>

Under this payment mode, the members will settle their securities transactions on the basis of DvP1. For such transactions, the SSS system will forward payment requests to the RTGS System for processing. Funds settlement will be performed via the settlement account number, specified for the member record. The account number specified could either be the member's own RTGS settlement account number, its settlement agent's RTGS settlement account number, the member's own BKS account number (in the BKS system) or its settlement agent's BKS account number (in the BKS system).

    b. <u>Offline Payment Mode</u>

This payment mode will be applicable to allotment, coupon/return payment and redemption processing only. Other transaction processing will not be allowed under this payment mode. The SSS system will perform the allotment/coupon/return payment/redemption for such members without having to interface with the RTGS System for payment. The payment instructions will be provided in a report to the Bank for further action. The Bank will ensure that the payment for such transactions is performed accordingly. Whenever the allotment/coupon/return payment/redemption has been settled by the SSS system, a screen alert will be sent to the Bank for appropriate action for the securities payment settlement. The Bank will be able to specify the list of users, who will receive the screen alerts.

Chapter 8
<u>Auction and Bidding</u>

1. Each auction will have the following statuses :

"Created"   The auction is created successfully in the SSS system.
"Announced"   The auction details are announced to the relevant members.
"Open"   The auction is open for member's bid submission.
"Closed"   The auction is closed for member's bid submission.
"Simulation"   The Bank has saved one of the simulating results.
"Approved"   The auction result is approved by the Bank.
"Allotted"   The auction has been allotted on the allotment date.
"Cancelled"   The auction is cancelled. (An auction could also be cancelled before the auction closes)

2. Auction Registration :

a) The auction process will apply to the first issuance of any new securities and re-opening of existing securities.

b) Both the competitive and the non-competitive bids will be accepted by the SSS system.

c) A unique auction number will be auto-generated and assigned by the SSS system. This number will act as the identification code throughout the auction period.

d) The Bank will define the following information during the auction registration :

1. Select an ISIN : For new issuance, the new ISIN will be created via the ISIN Maintenance.
2. Auction Type : Creation of a new auction or re-opening of an existing ISIN.
3. Specify the target whether bid by price or by quantity (nominal amount).
4. Minimum Bid Amount for an Auction : It must be in multiples of the denomination amount specified for the ISIN.
5. Incremental Bid Amount : The bid must be in multiples of this amount and must be in multiples of the denomination amount specified for the ISIN.
6. Total Auction Amount Offered : It must be in multiples of the denomination amount, specified for the ISIN.
7. Maximum amount offered for non-competitive bids in an auction : It must be in multiples of the denomination amount specified for the ISIN.
8. Specify whether multiple price bidding will be allowed.
9. Expected Return Rate : This will be applicable for auction with the ISIN category of Bonds and Ijara Sukuk.
10. Price expressed in percentage (if applicable)
11. Auction Member Group: Selected group of members will be made eligible to participate in the auction. Only these members will be allowed to submit bids for the auction. By default, the Bank will be included in all auction members' groups created.
12. The auction schedule (announcement date, auction/bid open date/time, bid pre-close date/time, bid close date/time).
13. During the creation of new securities via ISIN maintenance, the following information will be specified:
    a) ISIN code
    b) ISIN type
    c) ISIN description
    d) Currency
    e) Issuer
14. Lead Arranger (must be the Bank only or any Direct member with online payment option, as specified by the Bank)
15. Outstanding Nominal Amount (Allotment amount for new issue) :
    a) If the ISIN is selected for an auction, the field will be disabled for input. Upon the approval of the auction results, the field will display

the total allotted amount. However, if the auction is cancelled, it will be enabled again for user input.

      b) For direct placement, the user is allowed to input the total offered amount.

      c) Must be in multiples of the denomination amount.

16. Denomination
17. Taxable
18. Expected maturity date
19. Optional maturity date (applicable only after ISIN is active)
20. Ex-date period
21. Redemption price
22. Haircut Percentage (for Intra-day Credit)
23. Coupon/Return Payment information
      a) Type (fixed, floating)
      b) Rate (fixed rate will only be displayed)
      c) First Payment Date
      d) Frequency
      e) Next Payment Date
24. Return Rate for Islamic securities short term or Discount Rate for T-Bills (display only)

e) The Bank may delete an ISIN under the following conditions:
1. The new ISIN is not used for any active auction.
2. The new ISIN is not used for direct placement.
3. The new ISIN is not specified for rollover from another ISIN.
4. The ISIN has been redeemed. The option for delete will only be available after the online retention period.

(To delete the new ISIN under the first 3 conditions, the corresponding auction must be cancelled before the ISIN can be deleted.)

f) Upon the input of the return rate for the securities (by the Bank), a screen alert (for the Direct members) and an e-mail alert (for the Indirect members) will be sent to each member (in the group created for the auction). The input of the return rate for the securities can be specified anytime upon the registration of the securities till (before) the approval of the simulation results. The Direct members will be able to specify the list of users, who will receive the screen alerts. For the Indirect members, the e-mail alert will be sent to the email address, specified for the member record.

g) The Lead Arranger, as specified in the ISIN Code Maintenance, will be the deliverer (issuer) of the securities as well as the receiver of the payment for the allotment. The Lead Arranger must be the Bank or any other Direct member, as decided by the Bank.

h) For every new registration, the Bank will define the individual registration information for every ISIN. This information, which will be sent to the members during the auction announcement, will include securities type, issuer as defined in the ISIN Profile, issue date, maturity date, auction opening (bid open) date, auction closing (bid close) date, bidding opening time, bidding closing time,

auction number, Lead Arranger as defined in the ISIN Profile, minimum denomination of the ISIN, minimum bid amount, incremental bid amount and total amount offered for non-competitive bids.

i) The Bank may define the same or different window period for the bidding date (Bid Open and Bid Close) and bidding time (Bid Open, Pre-Close and Bid Close) for each auction. During the SSS operation time, there could be more than one active auction at any time on a single day.

j) The Bid Open date will be at least one day after the specified Auction Announcement date or the same as the Auction Announcement Date, as decided by the Bank.

k) During the day, the Bank will be able to override the timing for Bid Open and Bid Close by changing the time manually before it has started.

l) A registered auction can be cancelled at any point of time prior to approval of the auction results. A screen alert (for Direct members) and an email alert (for Indirect members) for the cancelled auction will be sent to each of the listed members of the selected member group. When the auction results have been approved by the Bank, the auction results will be considered ready for allotment and therefore, the auction can no longer be cancelled. The Direct members will be able to specify the list of users who will receive the screen alerts. For the Indirect members, the email alert will be sent to the email address specified for the member record.

3. **Auction schedule :**

   Auction Announcement :

   a) The Announcement date may either be before the auction open (bid open) date or the same as the auction (bid open) date, as decided by the Bank.

   b) On the announcement date, a screen alert (for Direct members) and an MT598 message (only for Direct members) and an email alert (for Indirect members) will be sent upon System Open via SWIFT to each of the members specified in the assigned auction member group. The Direct members will be able to specify the list of users who will receive the screen alerts. For the Indirect members, the email alert will be sent to the email address, specified for the member record.

   c) One day before the auction opens for bidding, Bid Open, a screen alert (for the Direct members) and an email alert (for the Indirect members) reminder will be sent to each of the members(at SSS System Open). From this point onwards, the auction details cannot be modified. The Direct members will be able to specify the list of users who will receive the screen alerts. For the Indirect members, the email alert will be sent to the email address specified for the member record.

   Bid Open :

a) An auction will be 'activated' upon Bid Open on the specified date and time. The SSS system will accept bids from the members for the auction. A screen alert (for the Direct members) and an email alert (for the Indirect members) will be sent to each of the members upon Bid Open. The Direct members will be able to specify the list of users, who will receive the screen alerts. For the Indirect members, the email alert will be sent to the email address, specified for the member record.

b) The Bids will be accepted only during the window/period between the Bid Open time on the Bid Open date (Bid Open) and the Bid Close time on the Bid Close date (Bid Close), as specified by the Bank. The Bid Close date will be either the same or different from (after) the BID Open date and it must be a working business date.

c) The members will be allowed to cancel their bids unless such a bid cancellation request is received after the Bid Close, when it will not be accepted.

Bid Pre-Close :

a) Upon Pre-Close, the SSS system will send a screen alert to the Bank with the information on the total accepted bid amount and the total amount offered. The Bank will be able to specify the list of users who will receive the screen alerts.

Bid Close :

a) Upon the Bid Close, the SSS system will no longer accept the bidding transactions, submitted by the Direct members via the Construct/Modify Bidding Message function.

b) The Bank will be allowed to input the bidding transactions via the Construct/Modify Bidding Message function on behalf of the members from the Bid Open to Bid Close but before the first auction simulation results are saved. Such bid transactions can be submitted by the members via telephone, fax, etc. The Bank will stipulate the procedures and mode of manual submission by the members.

c) Once the Bid Close Time is reached, the members will not be allowed to submit request to cancel bids.

d) A screen alert (for the Direct members) and an email alert (for Indirect members) will be sent to each of the members upon Bid Close. The Direct members will be able to specify the list of users who will receive the screen alerts. For the Indirect members, the email alert will be sent to the email address, specified for the member record.

Auction Simulation :

a) The Bank can perform auction simulation anytime after the Bid Open. Once the Bank approves a selected simulated result, the auction is deemed to be closed. No further simulation can be done and the result will be final.

b) The securities will be allotted according to the selected result on the allotment date, as specified in the ISIN Profile.

4. Submission of Bids :

a) The Bank can submit bids on behalf of any SSSS member. The Direct members can only submit/enquire about their own bid information via the Web browser.

b) The following information must be specified when submitting a bid:

"Auction Number"	Must be numeric. The auction that the member wants to bid in.
"BIC Code"	This will be defaulted to the Participant's member code. Must be in the list of the Auction Member Group specified for the auction.
"Reference Number"	The reference number specified by the member will be the unique identifier throughout that auction.
"Competitive"	To select the competitive or the non-competitive.
"Custody Code"	Must be a valid custody for the bidder.
"Bid Nominal Amount Applied"	Must be numeric, above the minimum bid amount and in multiples of the minimum denomination amount specified for the ISIN.
"Bid Price Percentage"	Must be numeric.
"Bid Discount / Interest Rate"	Must be numeric.

c) Member may submit the bid request as a competitive or a non-competitive bid. Unlimited number of competitive bid requests will be accepted but only one non-competitive bid request will be allowed for each custody account.

d) The bid amount must be above the minimum bid amount and in multiples of the denomination value of the ISIN, specified by The Bank. The members will be allowed to place the bid up to the total offered nominal amount.

e) The member may choose to cancel its bids submitted before the Bid Close. An MT598 message will be sent via SWIFT to the member informing that the indicated bid has been cancelled.

5. Simulation :

a) Prior to the Bid Close, the Bank may conduct simulation of the auction results. The Bank may simulate the auction results based on 'Target By Nominal Amount' or 'Target By Cut Off Price'.

b) If a member is suspended before Bid Close, the member will not be included in the auction simulation. If the member is suspended after the Bid Close, the member will be included in the auction simulation.

c) Successful competitive bids will be allotted according to the price specified in their bid submission.

d) Non-competitive bids will always be considered successful. If the total bid amount for the non-competitive is more than the total offered nominal amount (non-competitive), the bidders will be allotted proportionately, based on their bid amount.

e) Auction Results Simulation for Treasury Bills :
 - The bid transaction for Treasury Bills will be sorted, based on discount rate in ascending order.
 - The sorted list of bid transactions will then be used for simulation to generate the winners for the auction.

f) Auction Results Simulation for Bonds
 - The bid transaction for Bonds will be sorted based on Price in descending order.
 - The sorted list of bid transactions will then be used for simulation to generate the winners for the auction.

6. Auction Approval :

a) After Bid Close, the Bank will be able to approve the auction using the simulated results. The Bank will be able to select and approve the auction using one of the simulated results. The SSS system will store the results till the allotment date when the SSS system will send the allotment details to the RTGS system (as a batch) for payment. However, the settlement of the allotment in the RTGS system will be on per bid basis.

b) During Auction Approval, the SSS system will perform the following validation check:

"Auction Number"	Must be numeric. The auction that the member wants to bid.
"ISIN"	Must be a valid ISIN Code with status "Inactive".
"BIC Code"	Must be a valid SSS member BIC code. Member status must not be "Closed" and payment mode must be "Online" or "Offline".
"Custody Code"	Must be a valid custody for the bidder.
"Competitive"	Must be competitive or non-competitive.
"Bid Nominal Amount Applied"	Must be numeric, above the minimum bid amount and in multiples of the minimum denomination amount specified for the ISIN.
"Proceed Settlement Amount"	Must be numeric.
"Bid Price Percentage"	Must be numeric.
"Bid Discount / Interest Rate"	Must be numeric.

c) A screen alert (for Direct members), an MT 598 (only for Direct members) message and an email alert (for Indirect members) will be sent to each of the listed members of the selected auction group informing them of the list of successful members and the price. Each member will also receive the details of its own auction result, which will contain the following information:

1. The securities type
2. Issue date
3. Maturity date
4. ISIN
5. Issuer
6. Lead Arranger
7. Minimum denomination of the ISIN
8. Total amount allotted
9. Winner member code
10. Nominal amount awarded
11. Price
12. Yield

d) A screen alert will be sent to the Bank's users if the auction is for USD securities. The Central Bank administrator will be able to specify the list of the users who will receive the screen alerts.

e) If there is any offline payment for the allotment, a report will be generated for the user. This report will be available for download via the Web. The user must be granted access rights to Reports download function.

7. Securities Allotment

a) The securities allotment will occur from either the new issuance of an ISIN or the "re-opening" (i.e. allotment of additional quantities) of an existing ISIN.

b) The "Re-opening" of existing securities will utilise the existing/original ISIN code and will not result in the creation of a new ISIN code. The Bank will specify the "re-open" allotment date and the total nominal amount to be allotted.

c) The "Re-opening" of existing securities will not be applicable to Treasury Bills, Sukuk AlSalam and Ijara Sukuk Short Term.

d) The securities allotment will take place either through the securities auction results or the allotment information that will be manually input by the Bank via the "Direct Placement" function or rollover to a new ISIN.

e) Upon the SSS system Open for Current Day Payment Settlement on the allotment date, the following will take place :

1. The SSS system will credit the total allotted nominal amount into the Lead Arranger's Trade account.

2. The SSS system will interface with the RTGS System for payment settlement request for the allotted securities. This will be applicable only to those bidders with online payment mode. The RTGS System will inform the SSS system the status of the payment instruction whether the transaction is settled or cancelled at the end of the day and the location where the settlement took place (i.e the RTGS system or the BKS system).

3. For the successful bidder, who fails to pay for the allotted securities, the allotment for this bidder will be unsuccessful. The securities will remain un-allotted (i.e. retained with the Lead Arranger).

4. The SSS system will debit the Lead Arranger's Trade account and credit the successful bidders' designated custody account on a DvP basis (i.e. the securities are allotted to successful bidders' securities accounts upon successful payment in the RTGS system/BKS system).

5. The SSS will exclude those successful bidders with offline payment mode in the payment instructions to the RTGS System and the securities transfer will take place immediately (i.e debit the securities to the Lead Arranger's holding and credit the bidder's holding).

6. The securities settlement advices (MT547 and MT545) will be forwarded to the Lead Arranger and the successful bidders (for Direct members). For the Indirect members, the MT545 advice will be sent to the Bank.

f) The allotment payment processing will not apply to allotment via rollover to a new ISIN. On the maturity date or optional maturity date of the active ISIN, the active ISIN will be redeemed. The holdings of the now redeemed ISIN will then be allotted to the specified new ISIN to the corresponding member's custody account with no payment involved.

g) The securities settlement advices (MT547 and MT545) will be forwarded to the Deliverer and the Receiver when settlement is performed successfully. The SSS system will generate an Offline Payment Report for all the settled transactions for the Bank's reference and action, which will contain the following information:

1. Transaction type - ALO
2. ISIN type
3. ISIN Code
4. Allotment Date
5. Deliverer
6. Deliverer's custody code
7. Receiver
8. Receiver's custody code
9. Transaction nominal amount
10. Transaction settlement date
11. Transaction settlement currency

12. Transaction settlement amount
13. Payment Instructions (specified in the member record)

Chapter 9
'When Issue' Transactions

1. When Issue transactions will allow the members to put on record an agreement before the securities issuance date and to trade the securities on the issue date. The members will need to submit a new sales transaction to give effect to the agreement. On the date that a "When Issue" transaction is accepted and processed by the SSS system, it will not involve any transfer of securities and funds between the members.

2. "When Issue" transactions will only apply to securities that are new and have not been issued.

3. The Deliverer and Receiver will respectively submit Deliver against Payment (MT543) and Receive against Payment (MT541) transaction requests to the SSS system.

4. After receiving the transaction request, the SSS system will subject it to validation checks.

5. If any validation check fails, the transaction will be rejected and the SSS will return a reject advice (MT548) with the appropriate reject code. The reject code will be indicated in the field 25D and 24B of the MT548.

6. For each validated When Issue MT543/MT541 message received, the SSS system will scan for a corresponding unmatched validated When Issue MT541/MT543 message for matching with the following fields:

   a) Deliverer
   b) Receiver
   c) Deliverer Custody Code
   d) Receiver Custody Code
   e) ISIN Code
   f) Nominal Amount
   g) Settlement Currency
   h) Settlement Amount

7. If there is no match for the criteria, the transaction will continue to wait in the unmatched queue. The SSS system will cancel unmatched current value-dated transactions by the end of the day. For future value-dated transactions, unmatched instructions will remain in the SSS system and will only be cancelled at the end of the day, one day before the issue date, if it is still unmatched by then.

8. After the securities transactions are successfully matched, the SSS system will send matching advices (MT548) to the Deliverer and the Receiver.

9. On the issuance date, the Participants (deliverer and receiver) are to submit a new sales transaction, with information corresponding (using the actual price) to the "When Issue" transaction, for the transaction to be effective.

Chapter 10
'Free-of-Payment (FOP)' Transactions

1. The settlement of Free-of-Payment (FOP) transactions will result in the debiting/crediting of the Deliverer's/Receiver's SSS securities account. These transactions will not involve funds settlement.

2. The Deliverer will submit Deliver Free (MT542) transfer and the Receiver will submit Receive Free (MT540) requests to the SSS system.

3. After receiving the SSS transaction request, the SSS system will subject it to validation checks.

4. If any validation check fails, the transaction will be rejected and the SSS system will return a reject advice (MT548) with the appropriate reject code. The reject code will be indicated in the field 25D and 24B of the MT548.

5. For each validated FOP MT542/MT540 message received, the SSS will scan for a corresponding unmatched validated FOP MT540/MT542 message for matching with the following fields:

    a) Deliverer
    b) Receiver
    c) Deliverer Custody Code
    d) Receiver Custody Code
    e) ISIN Code
    f) Nominal Amount
    g) Settlement Value Date

    A matching advice (MT548) will be forwarded to the Deliverer and the Receiver, if the transaction is successfully matched.

6. If there is no match for the criteria, the transaction will continue to wait in the unmatched queue. The SSS system will cancel unmatched current-dated transactions by the end of the day. For future-dated transactions, unmatched instructions will remain in the SSS system and will only be cancelled at the end of the value day, if it is still unmatched by then.

7. After the securities transactions are successfully matched, the SSS system will send matching advices (MT548) to the Deliverer and the Receiver.

8. If the transaction is future-dated, it will be stored in the SSS system until the settlement date is reached and will be retrieved for settlement processing at the beginning of the specified value date.

9. If there is an update to the Working Day or Calendar definitions that cause future value-dated transactions already accepted by the SSS system to fall on a non-working day or a holiday, the transactions will be retrieved at the beginning of the next working day and then processed for settlement on that day.

10. The SSS system will proceed to check the securities holdings of the Deliverer if the transaction is current value-dated.

11. In the event that the Deliverer does not have sufficient securities holdings or there are existing transactions in its queue with the same securities that are queued due to insufficient securities, the SSS will place the transaction in the Deliverer's securities queue and a queue notification (MT548) will be sent to the Deliverer.

12. If sufficient holdings are available, the securities settlement will occur, i.e. the Deliverer's securities account will be debited and the Receiver's securities account will be credited accordingly.

13. The relevant securities settlement advices (MT546 and MT 544) will be forwarded to the Deliverer and the Receiver when settlement has been performed successfully.

Chapter 11

'House Transfer' Transactions

1. The House Transfer transactions will involve transfers to/from a member's own custody accounts. These transactions will not involve funds settlement.

2. The member will submit Deliver Free (MT542) transfer requests to the SSS system.

3. After receiving the SSS transaction request, the SSS system will subject it to validation checks.

4. If any validation check fails, the transaction will be rejected and the SSS system will return a reject advice (MT548) with the appropriate reject code. The reject code will be indicated in the field 25D and 24B of the MT548.

5. No matching is required for House Transfer transactions.

6. If the transaction is future-dated, it will be stored in the SSS system until the settlement date is reached and thereafter will be retrieved for settlement processing at the beginning of the specified value date.

7. If there is an update to the Working Day or Calendar definitions that cause future value-dated transactions already accepted by the SSS system to fall on a non-working day or a holiday, the transactions will be retrieved at the beginning of the next working day and processed for settlement.

8. The SSS system will proceed to check the securities holdings of the Deliverer if the transaction is current-dated.

9. In the event that the member does not have sufficient securities holdings, the SSS system will reject the transaction.

10. If there is sufficient holdings, the relevant securities settlement advice (MT546) will be forwarded to the Participant, when settlement has been performed successfully.

Chapter 12
Sale and Purchase Transactions

1. The settlement of the Sale and Purchase transactions will result in the debiting/crediting of the Deliverer's/Receiver's SSS accounts and crediting/debiting of the Deliverer's/Receiver's payment accounts, as per the defined payment mode in the member record.

2. The Deliverer and Receiver respectively will submit Deliver Against Payment (MT543) and Receive Against Payment (MT541) transaction requests to the SSS system.

3. After receiving the SSS transaction request, the SSS will subject it to validation checks.

4. If any validation check fails, the transaction will be rejected and the SSS system will return a reject advice (MT548) with the appropriate reject code. The reject code will be indicated in the field 25D and 24B of the MT548.

5. For each validated Sale and Purchase MT543/MT541 message received, the SSS system will scan for a corresponding unmatched validated Sale and Purchase MT541/MT543 message for matching with the following fields:
    a. Deliverer
    b. Receiver
    c. Deliverer Custody Code
    d. Receiver Custody Code
    e. ISIN Code
    f. Nominal Amount
    g. Settlement Value Date
    h. Settlement Currency
    i. Settlement Amount

A matching advice (MT548) will be forwarded to the Deliverer and the Receiver, if the transaction is successfully matched.

6. If there is no match for the criteria, the transaction will continue to wait in the unmatched queue. The SSS system will cancel unmatched current-dated transactions by the end of the day. For the future-dated transactions, unmatched transaction will remain in the SSS system and will only be cancelled at the end of the value day, if it is still unmatched by then.

7. After the securities transactions are successfully matched, the SSS system will send matching advices (MT548) to the Deliverer and Receiver.

8. If the matched transaction is future-dated, it will be stored in the SSS system until the settlement date is reached and thereafter, will be retrieved for validation and settlement processing at the beginning of the specified value date.

9. If there is an update to the Working Day or Calendar definitions that cause future value-dated transactions, already matched by the SSS system, to fall on a non-working day or a holiday, the transactions will be retrieved at the beginning of the next working day and then processed for settlement on that day. As for unmatched transactions, these will be cancelled at the end of the day.

10. After successful transaction matching, the SSS will proceed with settlement processing either immediately for current-dated transactions or at the beginning of the specified value date for the future-dated transactions.

11. In the event that the Deliverer does not have sufficient securities holdings or there are existing transactions in its queue for the same securities that are queued due to insufficient securities, the SSS system will place the transaction in the Deliverer's securities queue and send a queue notification (MT548) to the Deliverer.

12. If sufficient holdings are available :
    a. The Deliverer's securities will be "earmarked" for the required amount and the securities transaction will be processed for funds settlement.
    b. When the SSS receives confirmation of payment from the RTGS System, securities settlement will occur (i.e. the Deliverer's securities account will be debited and the Receiver's securities account will be credited).
    c. The securities settlement advices (MT547 and MT545) will be forwarded to the Deliverer and the Receiver, when settlement has been performed successfully.

Chapter 13
<u>Islamic Repo Transactions</u>

1. Islamic Repo will involve Islamic securities and refer to the re-purchase agreement between the Bank and the Participant (member) through a "Market Maker".

2. The processing of Islamic Repo will require dual level (first level and second level) of matching and confirmation involving three (3) parties: a Participant (as Deliverer), "Market Maker" or MM (as Receiver/Deliverer) and the Bank (as Receiver).

3. Prior to the submission of the request, all three (3) parties should agree to a unique deal reference. This code will be used to process the matching and settlement of the requested transaction sent by the three (3) parties. This code will be specified in the message field Deal Reference.

4. For the first level matching between the Participant (Deliverer) and the "Market Maker" (Receiver), they will submit Deliver Against Payment (MT543 - Participant) and Receive Against Payment (MT541-MM) transaction requests (IRA) to the SSS system.

5. For the first level matching between the "Market Maker" (Deliverer) and the Bank (Receiver), they will submit Deliver Against Payment (MT543 - MM) and Receive Against Payment (MT541 – the Bank) transaction requests (IRB) to the SSS system.

6. The Participant (IRA - Deliverer), the "Market Maker" (IRA – Receiver, IRB - Deliverer) and the Bank (IRB - Receiver), can submit the transaction request independent of each other.

7. After receiving the SSS transaction request, the SSS will it to validation checks.

8. For each validated Islamic Repo MT543/MT541 message received, the SSS system will scan for a corresponding unmatched validated Islamic Repo MT541/MT543 message for the first-level matching using the following fields:
    a. Deliverer
    b. Receiver
    c. Deliverer Custody Code
    d. Receiver Custody Code
    e. ISIN Code
    f. Nominal Amount
    g. Settlement Value Date
    h. Settlement Currency
    i. Settlement Amount
    j. Deal Reference
    k. Repo Settlement Currency
    l. Repo Settlement Amount
    m. Repo Closing Date

(A matching advice (MT548) will be forwarded to the Deliverer and the Receiver if the transaction is successfully matched.)

9. When the first Islamic Repo transaction (sent by the Participant-IRA Deliverer or MM-IRA Receiver or MM-IRB Deliverer or the Bank-IRB Receiver) is received by the SSS system, the validated information will be treated as the 'validating/matching' information of the unique deal reference, specified for subsequent transactions, to be sent using the same unique deal code.

10. If any validation check fails, the transaction will be rejected and the SSS system will return a reject advice (MT548) with the appropriate reject code. The reject code will be indicated in the field 25D and 24B of the MT548.

11. The following describes IRA transaction processing prior to second-level matching:

    a. When the IRA transactions, sent by Deliverer and "Market Maker", are received, the SSS system will attempt to match the transactions.
    b. If the transaction is matched, the transaction will continue to wait in the unmatched queue till a matching transaction is received by the SSS system. The SSS system will cancel the unmatched current-dated transactions by the end of the day. For the future value-dated transactions, unmatched instructions will remain in the SSS system and will only be cancelled at the end of the value day, if it is still unmatched by then.
    c. If the transaction is matched and is current-dated, the SSS system will check the securities holdings of the Deliverer. If the transaction is future-dated, the holding and the second-level matching will be performed at the beginning of the specified value date.
    d. The SSS system in the event that the Deliverer does not have sufficient securities holdings or there are existing transactions in its queue with the same securities that are queued due to insufficient securities, the SSS system will place the transaction in the Deliverer's securities queue and send a queue notification (MT548) to the Deliverer.
    e. If sufficient holdings are available, the Deliverer's securities will be "earmarked" for the required amount and the securities transaction will be processed for the second level matching with the corresponding IRB transaction.

12. The following describes IRB transaction processing prior to second-level matching :
    a. When the IRB transactions, sent by the Market Maker and the Bank are received, the SSS system will attempt to match the transactions.
    b. If the transaction is not matched, the transaction will continue to wait in the unmatched queue. The SSS system will cancel unmatched current-dated transactions by the end of the day. For the future-dated transactions, unmatched instructions will remain in the SSS system and will only be cancelled at the end of the value day, if it is still unmatched by then.

c. If the transaction is matched and is current-dated, the SSS system will process it immediately for the second level matching with the corresponding IRA transaction. If the transaction is future-dated, the second-level matching will be performed at the beginning of the specified value date.

13. If there is an update to the working day or calendar definitions that cause future value-dated transactions, already accepted by the SSS system to fall on a non-working day or a holiday, the transactions will be retrieved at the beginning of the next working day for processing.

14. On the settlement date, if the IRA transaction has been matched and securities held, the transaction would be processed for second level matching. For the IRB transaction, if the transaction is matched, the transaction will be processed for second level matching.

15. After the successful second level matching, the corresponding matching advices (MT548) will be sent to all parties.

16. The SSS system will send a payment request to the RTGS System to effect funds transfer for the SSS transaction.

17. When the RTGS System receives the payment request (IRO) from the SSS, the RTGS System will settle the two matched transactions (IRA/IRB) simultaneously. There will be no partial settlement for IRA and IRB i.e. settle IRA and reject IRB and vice versa. If the Market Maker does not have sufficient funds, the IRA transaction will be queued in the RTGS System and the corresponding IRB will wait until there are sufficient funds to settle IRA before it is settled subsequently.

18. When the SSS system receives the payment confirmation from the RTGS System, securities settlement will occur (i.e. the Participant's securities account will be debited and the Bank's securities account will be credited). The SSS system will automatically generate the closing leg transaction (IRC as a future-dated transaction) upon successful settlement of the opening leg.

19. The securities settlement advices will be forwarded to the Participant (MT547), MM (MT545 and MT547) and the Bank (MT545), when settlement has been performed successfully.

20. On the repo closing date, the SSS system will automatically process the repo reversal at the beginning of the day to return the securities to the original Deliverer and the funds to the original Receiver.

21. The SSS system will proceed to check the securities holdings of the original Receiver (the Bank - Deliverer of the second leg transaction).

22. In the event that the Deliverer does not have sufficient securities holdings or there are existing transactions in its queue with the same securities that are queued due to insufficient securities, the SSS system will place the

transaction in the Deliverer's securities queue and send a queue notification (MT548) to the Deliverer.

23. If sufficient holdings are available, the Deliverer's securities will be "earmarked" for the required amount and the securities transaction will be processed for funds settlement.

24. The SSS will send a payment request to the RTGS System to effect funds transfer for the SSS transaction.

25. When the SSS receives the payment confirmation from the RTGS System, securities settlement will occur [i.e. the Deliverer's (the Bank's) securities account will be debited and the Receiver's (Participant's) securities account will be credited].

26. The securities settlement advices will be forwarded to the Bank (MT547) and the Participant (MT545) when settlement has been performed successfully.

Chapter 14
Interbank Repo Transactions

1. Inter-bank Repo transactions will involve two (2) legs – Repo Opening and Repo Closing. The opening leg will be initiated by the Participants (members) whereby upon settlement, the SSS system will transfer the securities from the Deliverer to the Receiver and the RTGS System will transfer the funds from the Receiver (Payer) to the Deliverer (Payee). On the Repo Closing date, the SSS system will automatically execute the closing leg to return securities to the original Deliverer and funds to the original Receiver (Payee).

2. Inter-bank Repo will involve two (2) parties.

3. Inter-bank Repo can be between:
    a. A Participant (member) and another Participant (member)
    b. A Participant (member) and the Bank

   (The SSS system will supports Inter-bank Repo transactions between two (2) parties i.e. the Bank (CBB) and the Participant. Inter-bank Repo between a Participant and another Participant will be available as when decided by the Bank. The SSS system will reject the Inter-bank Repo transaction for settlement with another participant, which is not the Bank.)

4. A participant will not be allowed to initiate an Inter-bank Repo transaction using Islamic securities. A participant will only be allowed to use Bonds and Treasury Bills for an Inter-bank Repo transaction.

5. The Participants will be allowed to cancel repo closing transactions prior to the closing date. The cancellation requests must be matched before the inter-bank repo transactions are processed by the SSS system.

6. The Deliverer and the Receiver respectively will submit Deliver Against Payment (MT543) and Receive Against Payment (MT541) transaction requests to the SSS system.

7. After receiving the SSS transaction request, the SSS system will subject it to validation checks.

8. If any validation check fails, the transaction will be rejected and the SSS system will return a reject advice (MT548) with the appropriate reject code. The reject code will be indicated in the field 25D and 24B of the MT548.

9. For each validated Inter-bank Repo MT543/MT541 message received, the SSS system will scan for a corresponding unmatched validated Inter-bank Repo MT541/MT543 message for matching with the following fields:
    a. Deliverer
    b. Receiver
    c. Deliverer Custody Code
    d. Receiver Custody Code
    e. ISIN Code
    f. Nominal Amount
    g. Settlement Value Date
    h. Settlement Currency
    i. Settlement Amount
    j. Repo Settlement Currency
    k. Repo Settlement Amount
    l. Repo Closing Date

    A matching advice (MT548) will be forwarded to the Deliverer and the Receiver, if the transaction is successfully matched.

10. If there is no match for the criteria, the transaction will continue to wait in the unmatched queue. The SSS system will cancel unmatched current-dated transactions by the end of the day. For the future value-dated transactions, unmatched instructions will remain in the SSS system and will only be cancelled at the end of the value day, if it is still unmatched by then.

11. After the securities transactions are successfully matched, the SSS system will send matching advices (MT548) to the Deliverer and Receiver.

12. If the transaction is future-dated, it will be stored in the SSS system until the settlement date is reached and thereafter, will be retrieved for settlement processing at the beginning of the specified value date.

13. If there is an update to the Working Day or Calendar definitions that causes future value-dated transactions, already accepted by the SSS system to fall on a non-working day or a holiday, the transactions will be retrieved at the beginning of the next working day and processed for settlement.

14. The SSS will proceed to check the securities holdings of the Deliverer, if the transaction is current value-dated.

15. In the event that the Deliverer does not have sufficient securities holdings or there are existing transactions in its queue with the same securities that are queued due to insufficient securities, the SSS system will place the transaction in the Deliverer's securities queue and send a queue notification (MT548) to the Deliverer.

16. If sufficient holdings are available, the Deliverer's securities will be "earmarked" for the required amount and the securities transaction will be processed for funds settlement.

17. The SSS will send a payment request to the RTGS System to effect funds transfer for the SSS transaction.

18. When the SSS receives the payment confirmation from the RTGS System, securities settlement will occur, (i.e. the Deliverer's securities account will be debited and the Receiver's securities account will be credited). The SSS system will automatically generate the closing leg transaction (as a future-dated transaction) upon successful settlement of the opening leg.

19. The securities settlement advices (MT547 and MT545) will be forwarded to the Deliverer and the Receiver when the settlement has been performed successfully.

20. On the repo closing date, the SSS system will automatically process the repo reversal at the beginning of the day to return the securities to the original Deliverer and the funds to the original Receiver.

21. The SSS will proceed to check the securities holdings of the original Receiver (Deliverer of the second leg transaction).

22. In the event that the Deliverer does not have sufficient securities holdings or there are existing transactions in its queue with the same securities that are queued due to insufficient securities, the SSS system will place the transaction in the Deliverer's securities queue and send a queue notification (MT548) to the Deliverer.

23. If sufficient holdings are available, the Deliverer's securities will be "earmarked" for the required amount and the securities transaction will be processed for funds settlement.

24. The SSS system will send a payment request to the RTGS System to effect funds transfer for the SSS transaction.

25. When the SSS receives the payment confirmation from the RTGS System, securities settlement will occur, (i.e. the Deliverer's securities account will be debited and the Receiver's securities account will be credited).

26. The securities settlement advices (MT545 and MT547) will be forwarded to the original Deliverer and the original Receiver, when settlement has been performed successfully.

27. All the outstanding RPC transactions for the value date that could not be settled will be cancelled by the system upon system cut-off of that value date. Cancellation advices (MT548) will be sent to the Participant and the Bank and the "List of Messages Cancelled at the End-of-Day" report will be generated during end-of-day batch processing for the Bank's reference and necessary action.

28. At the System cut-off, the SSS system will also convert those cancelled RPC transactions into new Inter-bank Repo Overnight Loan Sale (RPS) transactions for the next business day. These transactions will represent the rollover of the RPC into overnight loan sale transactions.

29. At the beginning of the next working day, the SSS system will validate that the ISIN Code has at least one (1) more working day to the maturity date.
    a. If any validation check fails, the transaction will be rejected and the SSS system will return a reject advice (MT548) with the appropriate reject code. The reject code will be indicated in the field 25D and 24B of the MT548; or,
    b. The SSS will send a payment request to the RTGS System to effect funds transfer for the RPS transaction.

30. When the SSS system receives the payment confirmation from the RTGS System, securities settlement will occur, (i.e. the Deliverer's securities account will be debited and the Receiver's securities account will be credited for the settlement of the RPS).

31. The securities settlement advices (MT547 and MT545) will be forwarded to the corresponding Deliverer and Receiver.

32. The Bank can specify the allowed roll-over period, up to a maximum of 9 days, for the RPS transactions. The Bank's decision on this will be final.

33. The SSS system will attempt to roll-over the RPC/RPS transaction if the transaction still cannot be settled.
    a. The SSS system will not roll-over these RPC/RPS transactions, if the ISIN matures on the next working day.
    b. The SSS system will monitor the number of days that the RPS transaction has rolled-over. Upon reaching the maximum roll-over period, the SSS system will cancel the RPS transaction but it will not initiate a new RPS transaction for the next working day. The securities will remain in the Deliverer's (of the RPC/RPS) custody account.

34. The Cancelled RPC and RPS transactions will be reflected in the "List of Messages Cancelled at End-of-Day" report, generated during end-of-day batch processing.

Chapter 15
Intraday Credit Transactions

1. The RTGS members, who have insufficient funds in their RTGS settlement accounts to fulfil their payment obligations, may be allowed to obtain liquidity through collateralised intra-day repos with the Bank using the SSS system. When the member requires the intra-day credit, the RTGS System will automatically send the request to the SSS system on behalf of the member.

2. The Bank will define the securities (ISIN) that are eligible for intra-day credit. The bank may also opt to apply a haircut on the ISIN, should the ISIN be used as collateral for the intra-day credit. The ISIN can be configured to use a default/global haircut value or a defined haircut value, specific for the ISIN. If the Bank changes the global or specific haircut values, the members will be informed via the screen alerts. The members will be able to specify the list of users, who will receive the screen alerts. The Indirect members will not be informed, as intraday credit transactions are not applicable to them.

3. The members will be required to transfer securities that they want to use for intra-day credit, using House Transfers, from their Trade account into their Intra-day Credit account (IDC). Only securities in the member's Intra-day Credit account (IDC) can be used for intraday credit transactions.

4. The settlement of intra-day credit transactions will be executed on a DvP basis. The member's securities account will be debited (and the Bank's IDC account will be credited), if and only if the member's RTGS account is credited (and the Bank's account is debited).

5. The members will have to specify the priority/order according to which the securities will be utilised for intra-day credit in the SSS system. In the case where there are more than one securities sharing the same priority, the SSS system will identify the securities to be pledged as collateral based on the ascending alphabetical order of the securities.

6. The SSS system will validate the IDC request received from the RTGS system. If any validation check fails, the SSS system will reject the request and return an appropriate reject code back to the RTGS system.

7. Once the request is validated successfully, the SSS system will check if the member has sufficient securities.

8. The SSS system will identify the ISIN(s) (based on the specified priority) in the member's IDC account to fund the IDC request. Only active ISINs will be available for selection for the ICO transactions.

9. If there is no ISIN in the Participant's IDC account, the SSS system will reject the IDC request and return an appropriate reject code back to the RTGS system.

10. If there are securities in the member's IDC account, the SSS system will proceed to generate individual ICO (Intraday Credit Opening) transactions for each identified ISIN. If the first ISIN identified is not sufficient to fund the requested IDC, the SSS system will earmark all the available balances of the current identified securities and repeat the process (to identify more securities to fund the IDC) by identifying the next ISIN down the priority list until it is sufficient to fund the IDC request or there are no more securities in the member's IDC account. As such, the cash amount corresponding to the securities earmarked by the SSS system could be smaller or greater or the same as the RTGS IDC requested amount.

11. Once all the ISINs have been identified, regardless whether it is sufficient to fund the IDC request, the SSS system will "earmark" the securities in the member's IDC account.

12. The SSS system will send a batch payment response to the RTGS system to effect funds transfer for the SSS transaction.

13. If the RTGS system confirms the IDC response, the SSS system will transfer the corresponding securities from the member's IDC account to the Bank's IDC account (send MT545 to the Bank, send MT547 to the member).

14. Upon the successful completion of the securities transfer(s) for the ICO transaction(s), the SSS system will automatically create an ICC transaction for each ICO transaction. .

15. If the RTGS system rejects the IDC response, the SSS system will release the securities from the member's IDC account.

16. The RTGS system will determine the ICC transactions to be reversed. The RTGS system will debit the member's account and credit the Bank's account to reverse the outstanding IDC transactions in the RTGS system before informing the SSS system to do the corresponding reversal of the ICC transactions.

17. Upon receiving the reversal request from the RTGS system, the SSS system will transfer the securities from the Bank back to the Participant (send MT545 to member, send MT547 to Bank). Upon successful transfer of the securities, the SSS system will respond back to the RTGS system.

Chapter 16
Securities Coupon/Return Payment

1. The SSS system will calculate the coupon/return payment for Bonds and long term Ijara Sukuk. The payment will be calculated at the beginning of the ex-date (specified by the Bank for each SSSS issue) according to the coupon/return rate for the securities and members' holdings.

2. The coupon/return payment will not be applicable to Treasury Bills, Sukuk Al Salam and short term Ijara Sukuk .

3. The first coupon payment date and payment frequency will be specified by the Bank for each SSS issue. The Bank can define the payment frequency to be monthly, quarterly, semi-yearly or yearly. The SSS system will derive the rest of the coupon payment schedule accordingly, once the ISIN is active.

4. The SSS system will enable the Bank to specify the ex-date period for each securities issue. The SSS system will then derive the ex-date from the payment date.

5. The Lead Arranger, as specified for the ISIN code, will be the payer for the securities coupon/return payment.

6. The coupon/return payments will be calculated based on the current holding of the specified ISIN. The SSS coupon/return payment information will be interfaced to the RTGS system as a batch payment request during the SSS end-of-day batch processing on the day before the ex-date i.e. the beginning of the ex-date. The SSS system will consolidate the payment amount for the members on a per ISIN code basis in order for the RTGS system to effect the funds transfer.

7. The coupon/return payments will be settled through crediting the member's specified RTGS account or BKS account and debiting the Lead Arranger's RTGS or BKS account (the Bank or a Direct Member with online payment mode, as decided by the Bank). If there are insufficient funds in the Lead Arranger's RTGS account, the payment will be queued in the RTGS system. The payment will be cancelled if there is still insufficient fund at the end of the Inter-bank Transaction Settlement Session in the RTGS system.

8. If the payment mode for the member is "Offline", there will not be any coupon/return payment to this member in the RTGS system. The SSS system will generate an "Offline Payment Report" on the coupon/return payment due to the member for the Bank's reference and action.

9. When the payment date falls on a holiday, it will be carried forward to the following working day with no adjustment. Therefore, the settlement date in the payment information, sent to the RTGS system, will be the next working day following the holiday.

Chapter 17
Securities Redemption

1. The SSS system will provide facilities to pay redemption proceeds to members upon maturity date.

2. The Bank will define a maturity date for new issuance. An optional maturity date can also be specified for those active ISINs, which will then supersede the original maturity date. Early redemptions of ISIN will be supported. A screen alert [for the Direct Members], a MT598 message (for Direct Members) and an email alert (for Indirect Members) will be sent via SWIFT to inform each of the members of the change in the maturity date. The Direct

Members will be able to specify the list of users who will receive the screen alerts. The email alerts will be sent to the Indirect Members and directed to the email address specified for the Indirect Members in their member records.

3. On the ex-date, the SSS system will automatically calculate the redemption amount according to the quantity of SSS holdings and redemption price specified for the ISIN record during end-of-day processing. The redemption proceeds will be calculated based on the existing holder (to be paid on the maturity date) of the ISIN specified for redemption.

4. The SSS system will calculate the accrued interest amount for securities maturing on the optional maturity date. If the redemption date falls after the ex-date, the SSS system will not perform the accrued interest calculation since the coupon has already been calculated on the ex-date.

5. The SSS redemption information will be interfaced to the RTGS system as a batch payment request during the SSS end-of-day batch processing, for the redemption payment to the participants on the specified redemption date i.e. ISIN maturity date.

6. The redemption payments can be settled through crediting the member's specified RTGS account or BKS account and debiting the Lead Arranger's RTGS or BKS account (the Bank or a Direct Member with online payment mode, as decided by the Bank). If there are insufficient funds in the Lead Arranger's RTGS account, the payment will be queued in the RTGS system. The payment will be cancelled if there are still insufficient funds at the end of the Inter-bank Transaction Settlement Session of the RTGS system. If there are insufficient funds in the Lead Arranger's BKS account, the payment will be rejected by the RTGS system.

7. If the payment mode for the member is "Offline", there will not be any redemption payment to this member in the RTGS system. The SSS system will generate an "Offline Payment Report" on the redemption payment due to the Participant for the Bank's reference and action.

8. On the maturity date, the SSS system will "retire" the ISIN from the relevant SSS accounts and its status will be changed to "redeemed". Correspondingly in the RTGS system, the Lead Arranger's account will be debited and the relevant member's account will be credited.

9. The Lead Arranger, as specified for the ISIN code, will be the Payer for the securities redemption payment.

10. When the maturity date falls on a holiday, it will be carried forward to the following working day. Therefore, the settlement date in the redemption information sent to the RTGS system will be the next working day following the holiday.

Chapter 18
Transaction Queues

1. There will be one queue per securities per custody account of each member.

2. If a Deliverer has insufficient securities to settle its securities transaction or there is an existing transaction in the Deliverer's queue with the same securities that are queued due to insufficient securities, the transaction will be placed in the Deliverer's securities queue, and a queue notification will be forwarded to the Deliverer. The queue will be ordered by chronological submission and will be settled on a first-in-first-out "FIFO" basis.

3. When a Deliverer's securities holdings are credited, the SSS system will check the Deliverer's securities queue and release transactions accordingly when there are sufficient securities. If the Deliverer is not able to clear its securities queue by system cut-off, the pending securities transactions will be cancelled automatically by the SSS system. For each cancelled transaction, a cancellation advice will be sent to the Deliverer and the Receiver.

4. Members will be able to adjust transactions in their own securities queue (before the settlement takes place) that they have submitted to the SSS system via the 'Queue Management' function.

Chapter 19
Cancellation Transactions

1. The members will be allowed to cancel matched transactions pending for availability of securities and future-dated matched SSS transactions (including the closing leg of Inter-bank and Islamic repo transactions) before the transaction settlement date. The completion of the cancellation transaction will result in the status of the transaction being updated to "Cancelled" and no further processing will be allowed for this transaction.

2. Both the members have to separately submit cancellation requests to the SSS system, which will process the request only if the cancellation requests are matched successfully. Any unmatched cancellation requests will be cancelled at system cut-off.

3. Transactions that have been submitted for funds settlement cannot be cancelled. If the payment leg has been queued and subsequently cancelled by the RTGS system, this will result in a cancellation of the securities transaction.

4. The members will also be allowed to cancel their own unmatched SSS transactions. The SSS system will not apply the matching process for such requests.

5. The cancellation requests, received by the SSS system, will be processed on the same value day of receipt.

Chapter 20

Request for Statements

1. At end of the day's processing, the SSS system will generate end-of-day statements (MT535, MT536, MT537) for the Direct Members. The end-of-day statements for the Indirect Members will be sent to the Bank which will then inform the Indirect Members.

2. The Direct Members will be allowed to request for statements (MT535, MT536, MT537) during the SSSS operation period. The Bank can submit the request for the statements on behalf of the Indirect Members. Upon successful validation of the statements' requests, the SSS system will generate the corresponding statements for the members.

Chapter 21
Billing

1. The SSS system provides for flexibility to bill the members based on the following parameters or a combination of parameters:

   a. By Settlement time :
   1. The members may be charged based on the settlement time of their transactions.
   2. The Bank may specify the applicable settlement time bands and the unit charge for each time band. The unit charge will be applied to each transaction settled by the SSS system during the time band specified.
   3. The charges by settlement time will only be applicable for the settlement of the securities settlement transactions and bid transactions.
   4. The charges calculated by the SSS system will be billed to both the Deliverer and the Receiver.
   5. The following types of settled transactions will not be subjected to billing by settlement time:

      a. RPC – Interbank Repo Closing
      b. ICC – Intraday Credit Closing
      c. IRC – Islamic Repo Closing
      d. ALO – Allotment
      e. RDM – Redemption
      f. RPS – Outright DvP transaction due to failed Interbank Repo

   b. By Message types :
   1. The members may be charged for each SWIFT message sent to and received from the SSS system.
   2. The Bank may specify the applicable unit charge for each SWIFT message type.

3. The charges by message type will be applicable to all messages, regardless of whether the message is accepted, rejected or cancelled by the SSS system.

4. The charges by message type can be billed either to the Sender or the Receiver of the message.

c. By Connection time :

1. The members may also be charged a connection fee, based on the total period of time for which their users are connected to the SSS system via the web interface. The connection time for the day will be based on the start of the day till the system cut-off.

2. The Bank may specify the per-minute connection fee, which is applicable to all Direct Participants.

d. By Membership fee :

1. The members may be charged a periodic membership fee.

2. The Bank may specify the membership fee that will apply for each member.

e. Operator On Behalf of Indirect Members :

1. The transactions sent by the Bank on behalf of the Indirect Members may be charged according to the message types. However, any closing leg transactions may not be charged.

2. The Indirect Members may not be charged based on the settlement time of their transactions.

3. The billing fees based on message type may be charged to the Indirect Participants as per Direct Members and they may be charged an additional processing fee for each transaction, submitted by the Bank on their behalf regardless of the processing result. The Statement Request i.e. MT549 may not be subjected to the additional processing fee.

2. The settlement time, message type and connection charges may be computed daily at the end of the day and the members may enquire of the daily charges via the screen functions provided. This means that any update of the unit charges will apply during the end-of-day billing calculation. The connection charges, incurred after the end-of-day computation, will count towards the next day's charges.

3. The settlement time, message type and connection charges may be accumulated and billed either daily, weekly, fortnightly, monthly (billing period starts from the beginning of month till end of month) or quarterly (billing period starts from January, April, July or October) depending on the billing period defined by the Bank. Updates to the billing period will apply only after the next billing run. The Bank may also specify the minimum charge that will apply to each member for the period and the members may be billed the minimum charge, if the computed transaction/connection charges fall below this minimum charge.

4. The membership fees may be billed daily, weekly, fortnightly, monthly(billing period starts from beginning of month till end of month), quarterly (billing period starts from January, April, July or October), semi-yearly (billing period starts from January or July) or yearly, depending on the billing period defined by the Operator. Updates to the membership fee may apply immediately i.e. the updated fee may apply during the next billing run. Updates to the billing period may apply only after the next billing run.

5. The Bank may impose a tax, levy or duty on the billing via the Billing Parameter function.

6. The members may be exempted from billing, depending on the Bank's definition in the member records. When a member is exempted from billing, it means that charges, calculated by the SSS system, will not be billed to the member at the end of the billing period. When the Bank exempts a member from billing or lifts an exemption, this will apply during the next billing run.

7. At the end of a billing period, the billing run will be performed automatically at the end of the day to calculate the total billing charges, which will include the transaction, connection and membership fee charges (no charges will be billed to members that have been exempted from billing). The Billing payment will be settled via the payment mode as specified in the member record. During the batch run, the SSS system will send the relevant billing information to the RTGS system for payment settlement.

Chapter 22
SSSS Operational Activities

The sequence of activities throughout the business day will be as follows:

No	Activity	Time
1.	SSSS BOD (This activity is for the Bank to execute all the BOD jobs manually.)-Pre-market Open	**7.45 A.M.**
2.	Market Open (Open for Current Day Payment Settlement)	**8 A.M.**
3.	Cut-off for Current Day Payment Settlement	**1.45 P.M.**
4.	System Cut-off Warning	**2.05 P.M.**
5.	System Cutoff	**2.20 P.M.**

1. The Bank will specify individual timings for the various system activities. The activities will then be activated automatically at the specified times.

2. During the day, the Bank will be able to override the default timing for an activity by changing the time manually before it has started. When all system activities for the day have been completed, the activity timings for subsequent days will revert to the default timings after the end-of-day batch processing.

3. The Participants may request the Bank for extension of any system activity. The Bank may choose to levy a charge for such request. This will be performed via the Direct Debit/Credit function in RTGS system.

4. When the Bank makes a change to the standard system timing, broadcast messages in the form of MT598 messages (for Direct Members), screen alerts (for Direct Members) and email alerts (for Indirect Members) will be sent to the Members. The Direct Members will be able to specify the list of users who will receive the screen alerts. For the Indirect Members, the email alert will be sent to the email address specified for the member record. The MT598, email alerts and screen alerts will include information on the system activity for which the time has changed and the new timing that has been specified by the Bank.

Chapter 23
System Administration

1. **Member Interfaces :** Each SSSS member will, at its own cost and responsibility, install and maintain in good order such computer systems (hardware, software, networking, security products etc.), as required/recommended by the Bank for participation in the SSS system. The Bank may ask the SSSS members to upgrade/modify/replace such computer systems (hardware, software, networking, security products etc.) and other associated components in this regard from time to time. The computer systems will be located securely within each SSSS member's premises such that access to them is restricted to that member's authorised personnel only.

2. An SSSS member's Payment Systems Gateway must be a computer system or computer systems, conforming to the standards involving message formats and communication protocols, as recommended by the Bank. The connection must undergo formal verification and connection tests, as required for the purpose. All telecommunication, maintenance and other charges including the replacement charges in respect of the computer systems and other associated products, used for the purpose, will be borne by the relevant SSSS members only.

3. Each SSSS member will strictly observe and comply with the license or sub-license agreement entered into with the SWIFT/any other Institution in connection with any computer hardware/software, used for participation in the SSS System.

4. Each SSSS member will put in place the Disaster Recovery/Back-up facility for its Gateway and test the same from time to time.

5. With regards to the Back-up facility:

   a) Each member must ensure system availability with an uptime of about 99 per cent.

b) Each member must also ensure that the maximum down time in case of failure must be minimal only.

6. The Primary or Back-up facility must be located in a place where there are adequate arrangements for on-site review of the member's computer facilities, adequate arrangements for necessary authentication and security devices and adequate assurances that the Gateway will not be subject to interruption or interference due to internal or external developments.

7. The office in which the Gateway is located must be staffed with personnel, qualified and authorised to take appropriate action on behalf of the SSSS member with respect to the computer system/s and tele communication facilities, as required.

8. **Helpdesk** : The Bank will be commissioning a Helpdesk at the Bank for assistance to the SSSS members. The Helpdesk will:

a) Attend to the queries of the SSSS members.
b) Make notifications and clarifications, if any, concerning the SSS system.
c) Look after the dissemination of information in respect of the SSS System and any subsequent up-gradation of the SSS System and the environment.
d) Reasonably assist the RTGS members during any contingency situation faced by them.

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