

[2nd DRAFT]

Guidelines for operating in
Electronic Dealing System for Interbank Money Market
(EDSMoney Guidelines)



Bangladesh Bank

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**Committee for preparing 'Guidelines for operating in
Electronics Dealing System in interbank money market (EDSMoney Guidelines)'.**

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List of Acronyms

ALM	Asset Liability Management
BB	Bangladesh Bank
BD-RTGS	Bangladesh Real Time Gross Settlement System
BDT	Bangladesh Taka
BST	Bangladesh Standard Time
DFIM	Department of Financial Institutions and Markets
EDS	Electronic Dealing System
ICT	Information and Communication Technology
MMR	Money Market Receipt
OMD	Open Market Deal
OTC	Over the Counter
PD	Primary Dealer
REPO	Repurchase Agreement
UTC	Coordinated Universal Time
WBG	Wholesale Borrowing Guideline

1.1 The money market is characterized by trading in short-term financial assets that are often regarded as close substitutes of money. Interbank money markets are essential to the liquidity management of banks since they provide avenue for equalizing the short-term surplus funds of lenders and the requirements of borrowers. They are also important for monetary policy implementation as interbank rates are often regarded as central bank' target rates. The instruments transacted generally include unsecured lending and borrowing (call money, notice money and term money), commercial paper, repurchase agreements and certificate of deposits.

1.2 In order to facilitate real time online dealing mechanism in unsecured segment of interbank money market Bangladesh Bank has introduced Electronic Dealing System for Domestic Interbank Money Market (EDSMoney). In general, EDS-Money provides a web-based electronic dealing platform with features such as quote driven dealings displaying amount, rate, maturity, counterparty and exposure limit set up at the choice of participants subject to regulatory guidance. In this connection it is pertinent to provide the market participants with a comprehensive set of guidelines to function effectively in EDSMoney. Consequently, Debt Management Department has prepared a draft of the guidelines. These guidelines are expected to implement transparent & healthy business practices and high standards of professional conduct. It will also promote adoption of a unique form of market behavior and facilitate effective functioning of EDSMoney platform. Bangladesh Bank has prepared this 'Guidelines' under section 45 of Bank Company (Amendment) Act, 2013.

1.3 The guidelines have been prepared after analyzing widely accepted and market best practices, applicable rules and regulations issued by Bangladesh Bank and relevant documents of other financial markets worldwide. The objective of preparing this document is to make understand the features of this system and provide stakeholders with instructions, processes and rules for operating in EDSMoney-thus fostering a high standard of business conduct and good market practices for transactions in the relevant money market products and to ensuring equitable and healthy relationships among market participants. This document essentially details the core functions of EDSMoney: Communication, Dealing and Settlement along with various aspects of governance and risk management associated with transactions in

the products, provides business continuity plan, ICT security issues and specifies dispute resolution process to facilitate market efficiency, minimize disputes between counterparties and set an objective basis for arbitration between disputing parties if that is necessary. Hence, it is imperative that the participants of EDSMoney are well acquainted with these guidelines and ensure compliance with the same. Bangladesh Bank may take legal actions against a market participant for non-compliance of any of the provisions of this document by the users of the market participant under relevant sections of Bank Company (Amendment) Act 2013. The guidelines, after being published and implemented however, will continue to evolve whenever required by the market itself and/or any other law, rules, regulation or guidelines.

2

Overview and General Principles

2.1 Interbank Money Market

The interbank money market by definition provides banks and financial institutions with immediate access to funds and at the same time works as a means for short-term investments vehicles. It includes several market instruments, usually short term in nature and operates exclusively among scheduled bank and financial institutions and other approved organizations. Generally, it encompasses unsecured lending and borrowing, commercial paper, repurchase agreements (REPO) and certificate of deposits. However, the discussion in this document is limited to unsecured segment of the interbank money market of Bangladesh.

Unsecured Interbank Money Market

Unsecured borrowing and lending denominated in Bangladesh Taka (BDT) among market participants that are normally wholesale in nature. These are termed as call borrowing, short notice deposits and term deposits from banks and financial institutions and placement received with maturity up to one year.

2.2 EDSMoney platform

The Electronic Dealing System for Interbank Money Market (EDSMoney) is a web-based dealing platform for capturing, recording and settling BDT denominated transactions occurred in the unsecured segment of interbank money market of Bangladesh. It facilitates features such as user-to-user direct communication through instant messaging, online order placement and confirmation, real time update of market data, data archiving and online reporting. The system is developed and governed by Bangladesh Bank, the Central Bank of Bangladesh.

2.3 Objectives

The purposes of this document are to-

- a) set out the principles governing the operations of EDSMoney;
- b) define the users and specify their respective functions and the duties and obligations;

- c) detail the standard procedure of various functions;
- d) outline governance and risk management approaches associated with business of interbank money market and
- e) highlight plan in the events of contingencies, backup and restore procedure and policies for ICT security.

2.4 Applicability

The guidelines will be applicable to all market participants along with their respective users for transacting interbank money market products in EDSMoney.

2.4.1 Market Participants

The guidelines are applicable to participants in interbank money market, namely,

- a) Scheduled Banks;
- b) Financial institutions;
- c) Institutions specifically authorized for participating in call money market;

who have current accounts and/or settlement accounts with Bangladesh Bank (BB). Altogether they are called the 'market participants'.

2.4.2 Products

For the purpose of EDSMoney the products or instruments are categorized as Overnight, Short Notice and Term.

- a) **Overnight**
Refers to funds placed/borrowed on an overnight basis and automatically mature on the following business day.
- b) **Short Notice**
Refers to funds transacted for a period beyond overnight and not exceeding 14 days (maturity of 2 days to 14 days).
- c) **Term**
Refers to placement or borrowing of funds for periods from 15 days up to 1 year.

2.5 General Principles

EDSMoney guidelines are based on several underpinning principles and these principles are derived from relevant rules, guidelines and generally accepted market practices. These principles are briefly presented here. However, they are discussed comprehensively in relevant chapters later in this document.

2.5.1 Highest standard of conduct

Users of EDSMoney are expected to behave in an appropriate and professional manner to enhance the integrity, transparency and proper functioning of the market. It is the responsibility of the concerned market participants to ensure compliance with existing regulations, guidelines and legislations related to trades in EDSMoney platform.

2.5.2 Governance and risk management

Market Participants of EDSMoney are expected to develop and apply a mechanism that ensures prudent behavior in Interbank Money Market. A clear and defined internal control system may be developed for effectively managing the risks associated with their engagement in the market.

2.5.3 Mandatory platform

All transactions in interbank money market: overnight, notice and term are to be mandatorily executed on the EDSMoney platform.

2.5.4 Information sharing and consistencies

Users of EDSMoney are expected to share relevant data with counterparties that are material for concluding deals. All communications related to deals in EDSMoney must be exchanged through the platform.

2.5.5 Order placement, confirmation and settlement

All in scope orders are to be confirmed and executed through EDSMoney platform. Deal related data must be shared with Bangladesh Bank in reports as and when required. Settlement process of the deals in EDSMoney will be subject to market conventions as and when approved by Bangladesh Bank.

2.5.6 Backup and contingency plan

EDSMoney does have a clear business continuity plan along with data backup. In addition, market participants are required to formulate their own contingency plan in case of emergency situations at their end.

3

Accessibility

3.1 Accessibility criteria

Access to EDSMoney platform shall be permitted only to authorized and uniquely identified personnel termed as 'users'. A 'user' after being registered in EDSMoney platform can access to EDSMoney through a secure network provided by Bangladesh Bank. Bangladesh Bank has formulated and implemented connectivity policy¹ which must be complied with by all market participants in order to be connected with EDSMoney. Market participants must ensure appropriate security at their end so that unauthorized user cannot attempt to access the platform.

3.2 Access permission: Users in EDSMoney

For successfully completing all the functions in EDSMoney every market participant requires at least five distinct users: Admin, Mid Office, Dealer, Back office maker, back office Checker. These users would perform specific functions based on their roles in EDSMoney. Broadly, there are three major categories of functions in EDSMoney:



3.3 Functions are mutually exclusive

All functions of users are mutually exclusive. A single user is not permitted to perform multiple roles simultaneously. Users, however, can change roles as per the necessity of the respective market participants.

3.4 Functions of users in brief

The activities of users are summarized here. Detailed functions are presented in subsequent chapters.

¹ 'Extranet connectivity with Bangladesh Bank 2018 version 1.0'

Mid office and Admin user
<ul style="list-style-type: none"> • Counterparty limit, borrowing limit and dealer limit set up and management • User creation, activation, suspension and management of users • Monitoring and surveillance of Users' activities in the platform to check possible misconduct and unfair market practices

Dealer
<ul style="list-style-type: none"> • Negotiate with counterparty dealers, place order, respond to orders and execute deals • Analyze deal data available in the platform to assess own deals • Show highest standard of professional conduct in messages contents, quotation and interaction with counterparty dealers

Back office maker and checker
<ul style="list-style-type: none"> • Complete settlement procedure after a deal is struck, issue acknowledgement receipt and finalize settlement process on maturity • Record and report transactions as when required

3.5 Management of user accounts

Bangladesh Bank will create accounts of Admin users after receiving formal request from market participants. Admin users will remain under the umbrella of mid-office where the chief/primary Admin user will hold approval authority of creating or deactivating other users. Another mid-office user will be created by Bangladesh Bank who will act as secondary Admin with the responsibilities of initiating other user creation or deactivation. Jointly this pair will discharge the role of "Maker-Checker" for assigning users to the platform. Therefore, they will be responsible for maintaining records of the users, validate, deactivate and suspend users of the respective participating institution as and when required. While managing the users, the mid office and admin users will consult relevant guidelines, rules, instructions and market practices. For example, a user availing mandatory leave must be tracked by admin and/or mid users and will suspend the account until the user resume office after completion of leave. Users leaving the treasury division, may be suspended until they join again. In case of users leaving the organization their access to the platform must be suspended immediately and the admin user must inform Debt Management Department through official channel as soon as possible.

It is to be noted that apart from administrative roles mid-office will also cater the responsibilities of limit management, monitoring and surveillance in EDSMoney.

Therefore, in EDSMoney functions of mid-office users are segregated in two broad categories:

- a) *Operational*: User management and Limit management
- b) *Surveillance*: Monitoring of deals and traders conduct

Market participants will have the flexibility of assigning separate mid office users to perform each of the mid office functions or they may grant a user with access to all mid-office categories.

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4.1 Ethical and Professional conduct

Interbank transactions covered in EDSMoney are unsecured in nature i.e., loans are provided free of collateral. Therefore, to maintain integrity and to act in a manner of trust and confidence the market overall requires best practice, ethical behavior and highest standard of professional conduct from market participants. While conduct principles set out here are not exhaustive, they essentially set the standards and expectations how market participants must conduct themselves while operating in EDSMoney.

Market participants' ethical and professional conduct must adhere to the following principles:

- Treat counterparties fairly;
- Ensure all communications are clear, fair and not misleading;
- Manage information appropriately. Exchange necessary information to counterparts accurately and systematically to the extent permitted by the applicable regulations, rules and laws for negotiating the terms of the trade and successfully execute the deal;
- Manage financial and non-financial risks in line with the applicable framework and a risk culture that is effective in managing risk and leads to fair outcomes, supporting good judgment and accountability;
- Reject and challenge anti-competitive behavior;
- Ensure to do the right thing and never compromise on ethical standards and integrity

4.1.1 Ethical standard

All users must adhere to contemporary and widely acceptable ethical standards related to dealing in financial instruments. These standards, in fact underpin the fairness and integrity of the market. It is not possible for a set of standards on ethics to cover ethical behavior exhaustively. Being users of EDSMoney applying judgment is fundamental to acting ethically and professionally.

4.1.1.1 With a view to maintain public confidence and overall transparency of the market, users are required to-

- (a) act honestly in dealings with other users;

- (b) act in a consistent and appropriately transparent manner in related operations;
- (c) exchange information of every kind with each other accurately and systematically to the extent permitted by the applicable regulations, rules and laws;
- (d) consider and implement all kinds of measures and actions in order to prevent abuse of insider information of themselves and counterparties.

4.1.1.2 Authority of market participants should ensure their respective users maintain ethical behavior by-

- (a) promoting ethical values and behavior within the organization, supporting efforts to promote high ethical standards in the Market, and encouraging involvement by personnel in such efforts;
- (b) embedding and supporting the practice of ethical values within the organization's culture and share ethical values among themselves;
- (c) building awareness that when dealing in the interbank money market officials should expect to be held accountable for unethical behavior, and, when required should seek advice from appropriate personnel.

4.1.2 Professional conduct

All users share a common interest in maintaining the highest degree of professionalism and the highest standards of business conduct in the interbank money market.

High standards of conduct are assured by, but not limited to:

- (a) having sufficient knowledge of, and complying with applicable laws, rules, regulations, guidelines, circulars;
- (b) having sufficient relevant experience, technical knowledge, and training;
- (c) acting with competence and skill; and
- (d) applying professional judgment in following the organization's guidelines and operating procedures including, but not limited to, methods of execution, record keeping, and ethical behavior.

4.1.3 Unfair market practices

EDSMoney conduct and risk management philosophy expects market participants not only meet all applicable legal and regulatory requirements in respect of its market activities but also operates in line with best market practices which would actively support fair and orderly market outcome. It is therefore

critical for the EDSMoney users to understand the types of behavior that constitute Market Abuse and should refrain from those activities. Market Abuse can be defined into the following broad categories:

(a) Acting, or attempting to act, on the basis of inside information or material non-public information.

Dealers must exercise caution when in possession of material on-public, price sensitive information in relation to the financial instruments covered by this document. Subject to applicable laws and internal policies and procedures, when in possession of such information dealers must ensure that they do not induce counterparty to engage in any deal on the basis of such information.

(b) Disseminating false or misleading information and rumors in the market.

Dealers must not willfully spread rumors or disseminate false or misleading information. In addition, care must be exercised when handling unsubstantiated market information. All communications should have reasonable basis, be fair and balanced, and not contain any inaccurate or misleading information.

(c) Market manipulation and attempted Market manipulation.

Dealers shall not engage in manipulative or deceptive conduct or any form of conduct which would give other users of the market false or misleading impression as to prevailing market conditions, including but not limited to price, supply or demand, etc.

If a market participant is in any doubt about whether a practice is acceptable or not, they should contact their compliance or relevant department/function for further guidance.

4.2 Know your Counterparty and Dealing Relationships

Counterparty due diligence facilitates amassing diverse information about a market participant that fosters establishing a new relationship or continuing an existing relationship. While these counterparties are somewhat 'significant' for fund management they are likely to expose a market participant with considerable amount and types of risks e.g., credit risks and reputational risk. Therefore, it is highly recommended to conduct adequate due diligence and "know your counterparty" assessments before conducting a deal. These assessments should show a basic understanding of who the counterparty is and whether they are competent enough to engage in dealing relation.

4.2.1 All participants in the EDSMoney platform should 'know their counterparty' before establishing dealing relationship. Market Participants should have in place a clearly articulated approval process for their staff to follow before dealing with counterparties.

4.2.2 Once a counterparty dealing relationship has been established, it is strongly recommended that it is reviewed continuously by appropriate authority of market participants as a basis for whether continuing or discontinuing dealing relationship.

4.3 Risk Management

Interbank lending and borrowing exposes a number of risks, namely credit risk, liquidity risk, operational risk, reputational risk and interest rate risk. Market participants should identify and measure the risks and adopt and implement appropriate risk management tools. Market participants should, for example, follow 'Risk Management Guidelines for banks, 2018' and 'Core Risk Management Guidelines' published by Bangladesh Bank. These Guidelines do not purport to be exhaustive guidance covering each aspect of a market participant's own risk management activity. A market participant, therefore depending on its nature and size of business and degree of business complexity may establish a more sophisticated risk management framework. Therefore, it is highly recommended that all market participants should self-assess their risk profile and customize their risk management framework and approach to minimize risks associated with interbank transactions. Three topics pertinent to risk management, i.e., counterparty limit, borrowing limit and dealer limit in EDSMoney are discussed here for clarity and abidance.

4.3.1 Counterparty Limit

The issue of counterparty limits arises from the risk that a counterparty with whom an agreement was established may become unable to perform as per its obligation on due date. Imposing counterparty limits restrict the risk exposure to a particular counterparty. They are set so as to reduce the loss that could arise if the counterparty were to default on its obligations.

4.3.1.1 All market participants must have prudent counterparty limit for money market exposure i.e. the maximum exposure a market participant is willing to take on a particular counterparty should be determined. Limits are usually set by an appropriate/competent authority of a market participant in order to manage and control its risks.

4.3.1.2 A number of factors can be considered for setting the wholesale lending limit to counterparties, namely credit quality of the counterparty to the transactions, capital adequacy, liquidity, operational efficiency and other relevant components of financial statements. It is the duty of the mid office users insert the limit allocated for each counterparty in EDSMoney platform and the admin users are required to approve it. Under no circumstances the dealer should exceed the limits whether EDSMoney allows to place such order or not. For any changes in the previously declared limits, the mid office and admin user will complete the functions after having appropriate authorization.

4.3.2 Borrowing limit

4.3.2.1 Management of Exposure

Market participants can set a limit for borrowing in all three products - the maximum exposure a market participant is willing to take at any point of time. This prudential limit is established to manage the exposure considering the repayment capacity of a market participant and minimize the default risk of the borrower. It adheres to minimize the default risk of a borrowing market participant. In EDSMoney, borrowing limits are considered as aggregate of all the products-overnight, short notice and term. Market participants can, however allocate and adjust the limits among the products on the basis of their preferences.

4.3.2.2 Prudential Guidelines

Bangladesh Bank may time to time issue directives for banks and FIs stating maximum amount of borrowing from interbank market. Hence, market participants must adhere to regulatory directives or guidelines regulations while transacting in EDSMoney and follow any changes thereon. It is on the discretion of the market participants to set limits for each component of borrowing. All dealers must ensure proper attention not to exceed limits in respect of outstanding borrowing from overnight, short notice and term money market set previously.

(a) Commercial Banks

The prudential limits in respect of outstanding borrowing from wholesale borrowing for scheduled commercial banks (Primary dealers and Non-Primary Dealers) are as follows:

	Primary Dealer (PD) Banks	Non-PD Banks
Limit	100% of bank's eligible capital ² on fortnightly average basis with maximum two deviations (not more than 110% of the eligible capital).	80% of bank's eligible capital ³ on fortnightly average basis with maximum two deviations (not more than 90% of the eligible capital).

Where the components of wholesale borrowing are call borrowing, short Notice Deposit from banks and financial institutions, placement received with maturity less than 12 months, commercial papers/similar instruments and overdrawn Nostro-accounts⁴.

² [Asset-Liability Management \(ALM\) Guidelines](#) circulated by Bangladesh Bank on 07 March 2016, page 5

³ [Asset-Liability Management \(ALM\) Guidelines](#) circulated by Bangladesh Bank on 07 March 2016, page 5

⁴ [Asset-Liability Management \(ALM\) Guidelines](#) circulated by Bangladesh Bank on 07 March 2016, page 5

(b) Financial Institutions

The concerned department (DFIM) of BB regularly issues guidelines regarding maximum amount of borrowing from interbank money market by the Financial Institutions. At present BB has only specified call or overnight borrowing which is 40% of FI's equity⁵. BB issues guidelines regarding calculation of equity of FIs from time to time⁶. In respect of other borrowing components from interbank market, i.e., short notice and term money there is no specific cap stated by BB⁷. At the current market practices, FIs usually make interbank borrowing in all these products based on their funding appetite.

It is to be noted that these prudential guidelines may change from time to time and the market participants are required to comply with those changes meticulously.

4.3.3 Dealer limit

4.3.3.1 In order to control risk at user level, market participants may set limits for dealers. It is generally accepted practice that a dealer has to operate within authorized limits. Such authorization may describe the list of products the dealer is authorized to deal in, the individual limits authorized for each individual dealer, etc. It depends on expertise, dealing instincts and dealing capabilities of a dealer. It is the responsibility of the management to assess these factors along with organization's own size, need and market risk appetite while allocating limit to individual dealer. The limit so allocated should be reviewed regularly.

4.3.3.2 EDSMoney requires market participants to allocate limits to dealers both for borrowing and lending. These limits are the maximum amount of money a dealer can borrow or lend within a particular day. The limit includes dealing in all the products. In addition, market participants may formulate their own limit system for example, limit per deal ticket, limit per product and many more and apply appropriate oversight mechanism to check any subsequent breach.

4.3.4 Responsibility of Mid office and Admin user

The mid and admin users in EDSMoney generally control and regulate a significant amount of the activities of front office. EDSMoney requires market participants to assign mid office and admin users with overall monitoring and supervising responsibilities over their users. This will ensure maintenance of ethical

⁵ DFIM Circular No. 12; Date 05 August 2019

⁶ DFIM Circular No. 01; Date: 29 January 2019

⁷ DFIM Circular No. 09; Date 01 December 2013

standard, professional conduct and overall risk management. In addition to the functions highlighted in chapter 3 (Users) some of the key responsibilities of mid office and admin users may include:

- *analyzing and monitoring market and credit risks*
- *escalate regulatory and internal policy breaches by Front and back office*
- *monitor Treasury Risk issues (both front and back office) with Management*
- *monitor limit utilizations against all internal and regulatory risk limits*
- *conduct surveillance and monitoring for communications and deals.*

4.3.5 Interaction between dealer limit, counterparty limit and borrowing limit

EDSMoney has adopted some measures that are followed before placing an order. A dealer should consider the following assumptions at the time of placing an order.

- a) Once counterparty limit is established, dealers cannot place order for an amount that can eventually breach counterparty limit. On the contrary, dealers can place orders for the purpose of borrowing even if there is a possible breach in limit for borrowing.
- b) The founding principle for dealer limit is 'EDSMoney will not allow placing an order that will eventually breach a dealer's own limit whether it is for borrowing or lending'.
- c) EDSMoney will not allow placing an order that will eventually breach counterparty limit irrespective of breaching dealer's own limit.
- d) EDSMoney will still allow placing an order for borrowing when it supposedly crosses borrowing limit/wholesale borrowing limit unless it breaches dealer's personal limit.

4.3.6 Surveillance and oversight mechanism

Many trading-related scandals and errors in interbank market worldwide, which previously affected market participants and impacted the integrity of the financial systems, have their roots in inadequate internal controls, surveillance and oversight on the markets activities of Dealers. Therefore, it is imperative for the market participants to adopt and implement adequate monitoring standards for surveillance of trades in EDSMoney. The step is essential to ensure respective users are performing their functions according to ethical code and professional standards and to establish oversight for identifying and preventing market abuse. Management of market participants in EDSMoney should ensure that their surveillance and oversight mechanism deliver the following outcomes:

- prevent and proactively identify actions and behavior of the respective users that constitute market misconduct and respond appropriately
- Trades are executed in a timely, clear and controlled manner ensuring that trades are not manipulative
- appropriately handle trade information to reduce the opportunity for misuse

EDSMoney, among other things, will provide the following facilities to supplement the surveillance effort of the participating institutions:

- a) **Access to communications:** In order to check the conversations between dealers EDSMoney will provide downloadable versions of all chat histories upto **2 (two)** years from transmission date of the messages. This platform will also archive all messages for upto **5 (five)** years. Front office dealers, mid office and admin users will have access to message histories. The platform will have flexibility to add additional mid office users dedicated for monitoring and surveillance of front office trades and communications. Market participants may wish to add mid office user(s) that have authority to conduct specific operations such of mid office functions only. However, mid office and admin users will not have access to live message sessions between dealers.
- b) **Market Monitor:** In addition to dealers, mid office and admin users will have access to market deal data and own deal data on real time basis to facilitate assessing and evaluating market and own deal parameters.
- c) **Limit utilization:** EDSMoney facilitates mid office and admin users with live logs of limit utilization in respect of counterparty, borrowing and dealer limits.

4.4 Audit Trail

Audit trails are electronic records that chronologically catalog events or procedures of operations in EDSMoney for facilitating internal control. EDSMoney provides comprehensive audit trails which can be made available to participants on request at the discretion of BB. System administrators of BB are able to examine all the activities carried out on the System, including messaging, transactions settlements and any amendments in data thereof. However, all market participants should have similar types of audit trail functionality in their system. An audit trail functionality may include but not limited to-

- a) at application level, showing the path of transactions through the System,
- b) at Participant level, showing details of all transactions relating to a particular Participant;

c) at User level, giving a record of all accesses to the System and the actions of Users, keeping a record of actions by User and showing which users have taken action on any particular transaction. These elements form part of the technical audit trail known as the system log;

d) at technical level, providing a secure record of the technical functioning of the System, recording access to system modules and technical events in detail. This audit trail is referred to as the system log.

The main audit tools, apart from standard reports, are as follows:

a) facility to list all transactions in EDSMoney from on-line history files within the System for at least the previous **Two years**, from postings;

b) facility to request from User defined reports for audit purposes based on statistical and other tables in the database. For Participants, BB audit trail data may be supplied, if required.

5

Communication

5.1 Real-time exchange of information

EDSMoney has embedded communication module to facilitate exchange of information related to a potential deal. The deal/trade offer communicated/placed in the platform will instantly transmit to all money market dealers (front office users) connected in EDSMoney. Conversations transmitted in form of text messages among the dealers will be recorded and treated as evidence of settlement for settling disputes in future.

5.2 Mandatory for OTC deals

In over the counter (OTC) deals dealers usually engage themselves in active conversation for exchanging deal related data for concluding a deal. Due to 'private' nature dealers in EDSMoney are mandatorily required to transmit all deal related information before striking a deal.. At the end of a conversation session dealers of both side must type and transmit 'agreed' or 'accepted' or similar word to make it understandable that the parties reached a conclusive agreement to make an order and finally strike a deal. An illustration of a set of conversations is presented here.

Sl	Dealer A	Dealer B	Explanation
1	I would like to borrow 75 Crore for 3 days @ 2.75%		'A' initiated a message and made an offer to 'B'.
		@3.00%, others same.	It seems 'B' made a counter offer with changes in Rate but other terms unchanged
2	Agreed. Revised order- borrowing 75 crore, 3 days, 3.00%		'A' agreed with 'B' with revised offer and rewriting the revised order.
		Agreed	'B' agrees with revised order. Dealers reach in an agreement.

5.3 Implications of textual conversations

5.3.1 The sole purpose of the messaging system will be to exchange deal related data and information within the overall money market. Therefore, the texts and data used in messages must be limited to potential deals.

5.3.2 The contents of a message session will be the basis for creating an order. As a result, it is essential that texts and data used by them are easily understandable and objective in nature.

5.3.3 The receiver must respond to a message without delay.

5.3.4 A messaging session will last for **30 (Thirty) Minutes** and it will be automatically closed even if no decision is finalized.

5.3.5 Dealers will be able to retrieve, save and print any previous conversations online for a period of **2 (two)** years. Any conversation beyond the period will require written request to BB. The system will store all conversations for a **5 (Five)** years.

5.4 Messaging Terminology

The commonly used expressions in EDSMoney and their generally accepted meanings are as under:

Expression	Generally accepted meaning
I borrow	The dealer wants to borrow
I lend	The dealer wants to lend
10C	10 Crore or 10,00,00,000
1L	1 lac or 1,00,000
1.50%	Interest rate for lending and borrowing @ 1.50% annualized
1 day	Borrowed/lent for 1 business day;
'n' days	Borrowed/lent for 'n' number of days;
O/N	Overnight; amount borrowed/lent for 1 business day
Pass/Ni	Request passed/ Not Interested
Mine	I borrow/lend at my offer.
Yours	I borrow/lend at counterparty dealer's offer.
Final Price/Rate	The offer is final, no more negotiations allowed. It is the price/rate at which the dealer is willing to close the deal.
Agreed/Close/done/	I conclude the deal at the mutually agreed Price.

The market participants may prepare more terms and use them in EDSMoney after being unanimously agreed by them.

6

Dealing

6.1 Deal and its elements

The general nature of money market transaction is 'one party borrows fund and the other party lends'. In other words, money market transactions are flow of funds from one party to another. Thus, creating a deal is critical for EDS-Money. A deal has two sides: borrowing and lending and consequently a deal is a borrowing from the perspective of a borrower and at the same time lending from the perspective of the lender. Both borrowing and lending will constitute a single deal.

In EDSMoney, a successful deal consists of following essential elements.

- a) Two parties: borrowing counterparty and lending counterparty
- b) Principal or notional amount
- c) Interest rate
- d) Tenor
- e) Messages confirming the deal (for OTC deal only)
- f) Deal ticket

6.2 Guiding principles

Several principles must be followed by relevant dealers during dealing activities.

(1) Order and deal

In EDSMoney money market trades/transactions will essentially perform two operations to conclude a deal: a) initiate an order and b) accept that order. 'Order' stands for provisional invitation to the desired counterparty for either lending or borrowing a certain sum of money under specific terms and conditions. When the counterparty accepts that order the system recognizes it as a 'Deal'.

(2) Binding to message terms

The texts in the messages transmitted among the dealers are the basis for submitting an order. Therefore it is generally expected that all the parties remain stick to agreed terms and conditions, at the time of concluding the deal. It will be an act of non-professional conduct when a dealer does not

submit an order within a reasonable time after an agreement reached or not to accept a legitimate order. A legitimate order here means an order prepared and submitted as per the terms and conditions agreed between the relevant dealers during messaging sessions.

(3) Deal is irrevocable

When a deal is struck it becomes binding for the relevant parties. Generally, there will be no scope of cancelling/revising a deal. There is scope of revising/cancelling an order at any time before it is accepted. Under no circumstances, a deal can be revised or cancelled after settlement process is completed.

(4) Non-transferability

A deal eventually creates a liability to a borrower and an asset to a lender simultaneously. A deal cannot be transferred to a third counterparty.

(5) Quotation of interest rate

(a) It is generally expected that interest rates quoted by dealers are firm with true intention of borrowing or lending for an amount acceptable for both the parties. In order to minimize the scope for confusion, dealers may indicate the length of time and other parameters for which the quote will remain valid. Dealers are strictly prohibited from making frivolous quotes which they have no intention of honoring and which are designed merely to mislead market participants.

(b) Interest rates are quoted in percentage and annualized; rounded up to two decimal points.

(6) Dealing hours

Dealing hours in EDSMoney will be general banking transaction hours which is at present 10 am BST to 4 pm BST (UTC+6.00) which is subject to changes from time to time by BB. Additional 30 minutes may be made available due to fund settlement requirements in BD-RTGS; a settlement platform operated and managed by BB. BB may extend or change dealing hours due to delays in payment settlements in other settlement platforms, for example, Bangladesh Automated Clearing House operated and maintained by BB or any other reason deemed acceptable to concerned authority of BB.

(7) Standard amount and tenor of order

The minimum amount per deal is BDT 1 lac equivalent to BDT 0.1 Million. Order can be placed for any tenor from 1 (One) day up to a maximum tenor of 1 (One) year.

(8) Roll over

Roll over means extending the maturity of previously executed deal for an additional period of time. When a deal is rolled over, the maturity can be extended upto one year from the day the deal is rolled over. Roll over, however will be reported as a new deal with same or different interest rate and amount. Interest must be paid to the lender before starting the process of roll over. EDSMoney allows practice of roll over only for term deal.

(9) Execution of orders

- a) Dealers are bound to honor a deal if the order contains complete information and is being agreed or accepted by both parties.
- b) All forms of agreement via electronic messaging in EDSMoney are considered essential elements and binding to both parties.
- c) It is the responsibility of counterparties to ensure that the all terms and conditions of the transactions are well communicated and agreed as soon as possible. A deal should only be regarded as having been agreed upon positive acknowledgement by both parties only in electronic form (texts in relevant messaging session) of EDSMoney. Once agreed, the relevant dealer must place order and the counterparty dealer must respond to it without delay.

6.3 Dealing Method

In EDSMoney, dealers will have options to send an order to either (a) a specific counterparty or (b) to all valid counterparties at the same time.

6.3.1 Over the counter deals (OTC)

The method under which an order is sent to a specific counterparty and the counterparty dealer accepts that order will be regarded as 'OTC Deal' method. Alternatively named as 'Private Dealing', this method allows dealers to share data and information related to booking trades among themselves only.

Under OTC method, an order is negotiated through direct communication between dealers at opposite ends. After successful negotiation a deal will be finalized. To reach an agreement, dealers need to negotiate with each other on type of deal, amount, interest and tenor. The negotiation will take place only

on messaging module embedded in the EDSMoney platform. After successful negotiation, the instructing dealer will place an order. It is expected that the dealer who commenced the negotiation should be the instructing dealer.

After successfully placing the order in the system by the instructing dealer, counterparty dealers active in the system immediately will get the OTC order on their dealing screen inside their incoming order boxes. If the order is received as per agreed terms and conditions any one of the dealers will be able to accept the order within a stipulated time frame from receiving the order. In the circumstances, where the information in the order is not in accordance with the agreement, responding dealer can reject the order or send it for modification. If rejected, dealer must provide reasons for it. The order will remain valid until **30 (Thirty) minutes** before the end of regular dealing session unless recalled by instructing party.

6.3.2 Open Market Deals (OMD)

Instead of sending order to a single counterparty, a dealer has opportunity to send an order to the dealer's entire counterparties; a method defined as 'Open Market' dealing in EDSMoney. Under this scheme, a dealer does not require any pre-negotiation. Once an order is submitted it will be displayed to all valid counterparties. Counterparties can only accept or ignore that order.

6.4 Deal ticket

Once the order is accepted a deal ticket (in non-editable document format) will be generated at both counterparty's end and at the back offices of the counterparties. Deal ticket is a document confirming a deal. Usually in practice, back office of the lending counterparties utilizes this document as an instruction for making fund transfer in favor of the borrower. In EDSMoney, fund settlement instructions are automatically transmitted to the back office users as soon as deal is struck. Simultaneously, deal tickets do get generated at both parties' end. Deal ticket, therefore, basically serves for record keeping and reconciliation. Generating deal ticket is not a necessary condition for settling the transactions. The borrower's back office is obliged to complete the fund settlement process in first leg even if deal ticket is not raised. Deal ticket, by the nature of deals, is not transferrable.

6.5 Valid order

Orders are valid when they are placed within the limit set by the mid office and when they do not potentially crosses respective limits. The following illustrations will present the concept more understandably.

6.5.1 Illustration of valid order

(a) Lending

In case of lending, the system will initially check whether it will violate counterparty limit. If there is no violation in respective limits, system will consider the order as valid and will send it to the counterparty for further action. If the order surpasses counterparty limit the system will not allow the dealer to place that order. In that case, the dealer will have to modify the amount of the order.

(b) Borrowing

System will validate an order with other orders in place and outstanding amount. An order that consequently crosses the borrowing limit may provide a sort of warning flag to the borrower before placing it to the lender. A borrower however cannot place a borrowing order to a market participant with which the borrower does not have approved credit line or counterparty limit. Also, an order cannot be placed to a lender which may eventually exceed the cap set by the lender.

6.6 Order revision/cancellation

The following notes should be considered while revising/cancelling orders.

- a) An order, when placed can be recalled by the initiator with the consent from the respondent before it is accepted.
- b) A recalled order can be placed again after necessary modification.
- c) The respondent of an order can cancel the order any time before accepting it with valid and acceptable grounds.
- d) An order when accepted becomes a deal which is irrevocable by default.

It is generally expected that dealers do not modify or cancel any confirmed deals. However, market participants may face some circumstances where cancellation or revision of a particular deal(s) becomes inevitable. For those extremely exceptional situations, dealers on both sides must mutually agree between themselves and then they can complete the function. Dealers will not require pre-permission from BB for such activity. BB will however, constantly monitor such events and will require explanations from market participants for such activity. If not satisfied with the explanations, BB may take action as per relevant rules and regulations.

6.7 Recording of Deals

As soon as a deal is executed by the dealer, it is recorded in the system. Thus a dealer is able to find his/her position in money market based on the deals executed by him. Market participants may require recording the data in its own system and as a result, it is the responsibility of the market participant to set up its own process to gather required data from the system.

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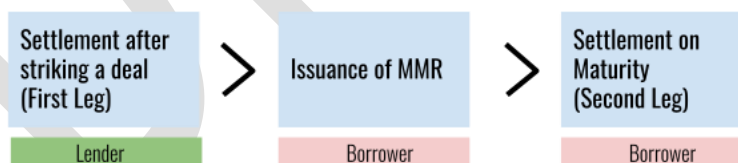
Settlement

7.1 Settlement process

Settlement of a deal refers to the transfer of funds from lender to borrower and subsequent issuance of acknowledgement document by the borrower in favor of the lender. Essentially, the transfer has to be made in full amount as confirmed in the deal. Fund settlement is an important "back office" function. Upon quick settlement it substantially reduces market risk by ensuring that deals are executed properly.

Standard settlement date in EDSMoney is T+0. Settlement process of a deal is not within the scope of the guidelines at present. Deals executed in EDSMoney may be settled through other settlement platforms, e.g., issuing checks in favor of borrowers by lenders or through Real Time Gross Settlement System established by Bangladesh Bank. In future, however, an automated system can be established to integrate settlement process within the platform.

In EDSMoney, however, to keep track of the settlement records in both on value date (the time at which a transaction is fully cleared and settled; currently T+0) and on maturity, settlement information need to be shared by relevant market participants with counterparties. In general, the total settlement cycle may have the following process.



7.2 First leg settlement

After a successful deal it becomes binding for the back office of the lending market participant to send the deal amount to the borrowing counterparties. At present, settlement date is T+0 and this process is termed as First leg settlement. The lender will pass settlement information, e.g., check number, BD-RTGS reference number to borrower through EDSMoney. In return, the borrowing counterparty will

acknowledge the receipt of fund by issuing an acknowledgement receipt called Money Market Receipt (MMR).

7.3 Money Market Receipt

After confirmation of deal, borrowing counterparty will issue a system generated receipt called 'Money Market Receipt' in favor of the back office of the lending counterparty which may be treated as acknowledgement of the borrowed funds.

After successful first leg settlement, a user from back office will generate an acknowledgement receipt called Money Market Receipt (MMR) through the system against fund received at his/her end. As soon as it is generated, MMR will automatically be transmitted to counterparty's back office. Once an MMR is issued it cannot be revoked. MMR may have following properties:

- (a) MMR is a non-editable system generated document. Usual format may be portable document format (pdf) and therefore, no signature is required.
- (b) MMR may include all material information pertinent to a deal, including deal amount, interest rate, date, tenor, maturity date, name of borrowing and lending market participants, deal number and others.
- (c) Issuance of MMR is a reflection of current market practice. In EDSMoney, it serves as a supportive role for ensuring borrower's legal obligation to pay off the fund on maturity. It is because EDSMoney records all data related to the deal including clear identification of borrower and lender and respective obligations. Non-issuance of MMR does not vacate the right of the lender over the fund lent to the borrower and the responsibility of the borrower to repay the fund.
- (d) MMR is not transferrable.
- (e) MMR may not be treated as a promissory note or negotiable instrument in sort under The Negotiable Instruments Act, 1881.

7.5 Second leg settlement

On maturity, the borrower may pay off the fund borrowed from a lender. It is the responsibility of the borrower's back office to settle the fund along with the interest after deducting necessary taxes and charges, if any.

7.6 Market Conventions

Standard conventions for calculating the interest and proceeds in EDSMoney are set out as follows:

- Interest is calculated on Actual / 360 day basis.
- Interest payable to be rounded off to the nearest BDT.
- Interest on the amount borrowed/lent = $\frac{\text{amount borrowed or lent} \times \text{tenor} \times \text{interest rate}}{360 \times 100}$

7.7 Taxes and other duties

The amount of taxes and excise duty (if any) may be imposed based on applicable rules and regulations issued by appropriate authorities. EDSMoney will neither take the responsibility of suggesting the rate and amount of taxes and other charges nor it will keep record of taxes paid or deducted. The relevant parties will make necessary records and deposit the amount of taxes as per set rules and guidelines. It is the responsibility of relevant market participants to issue certificates/statements regarding taxes, excise duty and other charges imposed.

7.8 Roll over

Roll over means extending the maturity of a previously executed deal. Roll over, however, is reported as a new deal with the same or different interest rate, amount and tenor. Certain conditions may need to be considered for the roll over process.

- a) The lender and the borrower must agree before rolling over a particular deal
- b) Only term deal can be rolled over
- c) Interest must be paid to the lender before starting the process of roll over.

7.9 Overdue deal

A deal becomes overdue when it is not fully settled (both interest and principal) on the day of maturity. In that case, the deal will be transferred to a different settlement segment called 'overdue deals' from where it can be settled. The settlement process would be the same as a 'second leg settlement' process with exception of imposing penal interest in addition to regular interest rate (the interest rate of the deal). The rate of penal interest and duration may be set as per mutual understanding between the lender and borrower.

7.10 Reconciliation

Once the transaction has been settled, the relevant officials of market participants may reconcile all the relevant documentation for accounting and audit purposes. EDSMoney may not provide any reconciliation tool within the platform by itself.

8.1 ICT Security

Information and communication technology (ICT) infrastructure and resources are fundamental for functioning of EDSMoney platform. Hence, it is utmost important to protect ICT systems and information from unauthorized access, use, disclosure, disruption, modification or destruction. Inadequate security may result in substantial business risk that threatens not only important ICT assets, but also business processes critical to the continued operations of the relevant institutions.

8.1.1 Responsibility of Bangladesh Bank

As a system operator and manager of EDSMoney, Bangladesh Bank has taken appropriate measures to protect ICT resources and confidential information from unauthorized use, modification, loss or release. All relevant employees of Bangladesh Bank have to follow provisions of internal ICT security policies while using hardware, software and network resources of EDSMoney platform. The ICT Security Policy provides the governance framework of information security management within Bangladesh Bank applicable for all ICT systems and covers all information processing facilities and information that is electronically generated, received, stored, printed, scanned, and typed.

8.1.2 Responsibility of Market Participants

Market participants are the core users of EDSMoney platform. In addition to security provided by Bangladesh Bank for the platform, market participants must ensure appropriate security measures at their end. Market participants are responsible to manage their user accounts, access rights and security authorizations through an accountable system or records management process in order to protect the system and information from unauthorized access, modification, disclosure and destruction. Since information systems and networks are an integral part of EDSMoney and fundamental to continued business operations of Market Participants, they must adhere to prescribed ICT policy and guidelines. To adopt appropriate security measures for EDSMoney platform market participants are required to follow the provisions of 'Guideline on ICT Security for Banks and Non-Bank Financial Institutions, Version 3.0 (May, 2015)' with subsequent amendments thereon published by Bangladesh Bank. The Guideline on ICT Security is to be used as a minimum requirement and as appropriate to the level of technology adoption

of their operations for attaining overall objectives of secured setup of its ICT infrastructure, establish a secured environment and adopt ICT Risk management tools.

8.2 Contingencies and Business Continuity

In the events of unexpected situations such as sudden natural or man-made incident where change & destruction occur, business activities may get severely affected. These are contingencies that may cause damages to normal operations of EDSMoney. Business continuity and disaster recovery management is therefore required for planning of business resilience planning for such disruptions, data center disasters and recovery plan.

Largely, these unanticipated events or contingencies can be broadly classified in two categories namely, systemic and participant specific events.

(a) Systemic events

In case where such contingencies would impact all market participants as a whole, they can be termed here as systemic events.

(b) Participant specific events

Events that could have an impact on business operations of a particular market participant but not the market as a whole are termed as 'participant specific problems'.

Actions that must be carried out in both situations from the perspectives of Bangladesh Bank and Market Participants in case of contingencies are discussed below.

8.2.1 Business continuity in Systemic events

Situations where the events affect the EDSMoney platform, i.e., systemic events Bangladesh Bank shall have the right in its sole discretion to determine and warn Market Participants that a contingency has occurred. This may or may not include transfer of operations to the DR site and/or to implement other available alternatives. Bangladesh Bank, however would make necessary steps to resume business activity based on the provisions of 'Business Continuity and Disaster Recovery Management' as described in relevant ICT policies and guidelines. As an alternative approach and for continuing business operations in a systemic event, BB may allow market participants continuing money market operations on alternative or traditional platforms. To record those transactions BB will provide a scheme through which the market participants will be required to report the transactions and related settlement data to BB.

8.2.2 Business continuity during 'Participant Specific Events'

As soon as users face 'participant specific events', i.e., users experience difficulty in accessing EDSMoney or performing functions in EDSMoney for any reason the relevant market participants must notify Bangladesh Bank immediately. Simultaneously, they must diagnose the incidents and take appropriate measures for fixing the problem at the earliest. In these cases, other market participants may be required to suspend all kinds of transactions with the said market participant temporarily or more specifically until the recommencement of business process of that particular market participant. The '*Guideline on ICT Security for Banks and Non-Bank Financial Institutions, Version 3.0 (May, 2015)*' has clearly mentioned the process of business continuity which the market participants are required to adopt.

For continuing business operations, BB may allow relevant market participant conducting dealing and associated activities in alternative channel agreed by both the counterparties. This may include using alternate channel for communications (e.g., voice messaging over telephone or similar media) and confirmation of deals. The market participants will mandatorily report the transactions to BB as per the formats and methods suggested by BB. These 'participant specific events' are required to be diagnosed and solved carefully so that they do not come up regularly. Moreover, BB may allow off-EDSMoney deals in alternative channel for **24 (twenty four)** hours or any period deemed acceptable to BB.

8.3 Data backup, restore and disaster recovery plan

Backup is the process of systematically storing the data on a particular system periodically that will be useful at the recovery process of regular business activities in case the original data is lost or unusable. EDSMoney runs on various types of financial data where the market participants are surely dependent on their core operations in money market. Bangladesh Bank has taken necessary steps to formulate backup, restore and disaster recovery policy for EDSMoney application as per the guidelines described in applicable ICT policies and Market Participants must have appropriate backup strategy, restore disaster recovery solutions per the provisions outlined in '*Guideline on ICT Security for Banks and Non-Bank Financial Institutions, Version 3.0 (May, 2015)*'.

8.4 Unscheduled holiday

It means a day that is not a regular 'business day' and the market participants were not aware of declaration of such holiday by appropriate authority until commencement of regular business operations. These unscheduled holidays may be declared on account of holidays subject to appearance of moon, executive order for general holiday, natural disaster, fire, pandemic, disruption of computer network and connectivity and any other unforeseen event. When an unscheduled holiday is declared, the maturity of a

deal (deals that have maturity on that day) will automatically be shifted to next business day. On the contrary, when a declared holiday is cancelled by appropriate authority that day becomes a business day and therefore, the maturity of the deal (deal that had maturity on the next business day following the holiday) will fall on the business day that was previously a holiday.

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9.1 Dispute resolution procedures

In case of a dispute between market participants, the respective rights and obligations in relation to messaging and dealing functions processed through EDSMoney, and all other matters referred to in these guidelines, shall be determined according to the laws of Bangladesh. In case of operational error, questions or differences whatsoever at any time, the market participants concerned shall sit together in order to find an amicable settlement and take all necessary measure to that effect. If Participants do not agree to find such an amicable settlement, each Participant concerned shall request BB in writing 10 (Ten) calendar days at the latest after the occurrence of the error or dispute, to start a conciliation procedure in order to find a solution concerning the error or the dispute, its consequences and damages. The Participants concerned shall communicate to BB all necessary information and documentation to this effect.

9.2 Conciliation and arbitration procedures

Market participants agree to submit any dispute concerning the interpretation or the implementation of these guidelines on which the parties have not been able to find an amicable settlement within 10 calendar days of the original transaction took place to an arbitration process as follows. Either parties or any one party may choose to go for conciliation and arbitration under Bangladesh Bank's management. Debt Management Department of Bangladesh Bank is responsible to make the conciliation or arbitration. The process in brief is as follows:

- BB will instruct the parties to submit documents related to the disputed transaction;
- BB will fix a date and hear from the parties and will give its verdict.

The aggrieved party, if any, with the verdict would be able to appeal to the Executive Director in charge of Debt Management Department, BB against the verdict within 7 (seven) calendar day. Separate officials may be assigned to deal with the case and final verdict may be given by the General Manager, Debt Management Department. The final verdict would have an immediate effect and if the convicted party fails to pay the penalty (if any) in time, BB may choose to deduct from its current account and replenish the effected party.

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Amendment of Guidelines

BB is responsible for the amendment of these Guidelines from time to time or the Annexure hereto, or any additional documents containing, inter alia, technical provisions and specifications for EDSMoney. Participants may suggest amendments to BB which may be considered by BB and may, in consultation with other participants, apply them as an amendment. Such amendments and additional documents shall become effective as an integral part of these Guidelines and be effective as per the date specified by BB. BB may inform each participant for any modification/amendment before its come into force.