BURSA MALAYSIA SECURITIES BERHAD

Date : 5 September 2011	R/R No.: 8 of 2011

AMENDMENTS TO THE RULES OF BURSA MALAYSIA SECURITIES BERHAD ("RULES OF BURSA SECURITIES") IN RELATION TO DIRECT MARKET ACCESS FOR EQUITIES ("DMAE")

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A) INTRODUCTION

Bursa Malaysia Securities Bhd (the "Exchange") retired the Exchange-hosted Direct Market Access (DMA) gateway with effect from 1 August 2011.

With the retirement of the Exchange-hosted DMA gateway, and in line with the Exchange's principles-based approach to regulation, the prescription of pre-trade risk filters set out in paragraph 3.2.2 of the DMA Operations Directive will be removed. Instead, Participating Organisations ("PO") are imposed with a broad obligation to install appropriate pre-trade risk filters to check or screen a DMA Order before it is executed. POs must, at the minimum, install 3 types of pre-trade risk filters as set out below in paragraph C.

In line with the above, amendments have been made to the Rules of Bursa Securities and the DMA Handbook. The DMA Operations Directive will be revoked and new directives issued.

B) AMENDMENTS TO THE RULES OF BURSA SECURITIES

The salient amendments to the Rules of Bursa Securities are as follows:

(a) References to DMA Infrastructure have been removed from Rules 101.1, 701A.2 and 701A.4; and

(b) Rule 701A.3 has been amended to impose an obligation on a PO to have appropriate automated risk filters to check or screen a DMA Order before the DMA Order is executed in the trading system, for the purpose of ensuring that the DMA Order does not affect the orderly and fair functioning of the market.

The amendments to the Rules of Bursa Securities are set out in **Annexure 1.**

C) DIRECTIVES

POs must comply with the following directives issued pursuant to Rule 201.1(2)(d):

Pre-trade risk filters

POs must comply with the following directives in relation to pre-trade risk filters for their DMA clients:

1. POs must ensure that DMA Orders are entered into the Exchange's order book with due skill, care and diligence and with due regard for the integrity of the market. POs must install risk filters that will enable the screening of DMA Orders before they are entered into the Exchange's order book. The risk filters must

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verify all DMA Orders and check for trade exceptions that may affect the orderliness of the market in the event that these DMA Orders are matched. POs may determine the type of risk filters according to the risks that are being managed, subject to the minimum requirements in paragraph 2 below.

2. POs must, at the minimum, establish the following types of risk filters to screen every DMA order before the entry of such DMA Order into the Exchange's order book:

   (a) **Trade exposure risk filter** – to manage the maximum exposure in which a DMA client may trade. The filter must be set on the basis of:

   (i) gross purchase position; or

   (ii) net purchase position.

   (b) **Order size risk filter** – to manage the maximum DMA order size which a DMA client may enter into the Exchange's order book. The filter must be set on the basis of:

   (i) value in ringgit (RM);

   (ii) quantity (units); or

   (iii) a combination of (i) and (ii) above.

   (c) **Price limit risk filter** – to manage the maximum price of DMA order which a DMA client may enter into the Exchange's order book. The filter must be set on the basis of:

   (i) percentage (%) away from the last traded price;

   (ii) ticks (bid / offer) away from the last traded price;

   (iii) percentage (%) away from reference price;

   (iv) ticks (bid / offer) away from reference price; or

   (v) a combination of any of the above.

3. The POs must establish internal policies and procedures in relation to the setting of appropriate values for the risk filters. POs must take into consideration the risk profile and/or conduct of each client in accordance with its Know-Your-Client ("KYC") obligations under Rule 404.4 of the Rules of Bursa Securities. POs must also ensure that all changes to the values are immediately logged.

4. **Error and/or exception handling**

   A PO must clearly establish a set of procedures on handling all errors and exceptions. In handling the same, the procedures must include, at least, the following:

   (a) A list of errors and exceptions that have been identified with recommended solutions (if any) including of records of past actions taken;

   (b) The risks associated with and the handling priority for each of the identified errors and/or exceptions; and

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(c)   The escalation procedures for each of the error and/or exception.

In addition, PO must establish sufficient procedures to monitor and, review (including the frequency) all activities in relation to DMA errors and/or exceptions.

Logging of DMA activities

5.   The PO must ensure that the following details in relation to a DMA Order are logged immediately:

(a)   References to the DMA client/DR responsible for the DMA Order;

(b)   Date and time-stamp;

(c)   DMA client sign-on;

(d)   DMA client sign-off and the manner in which the sign-off was carried out i.e. manual or automated;

(e)   Order identification/sequence number;

(f)   The outcome/status of the risk filter screening inclusive of events subsequent to DMA Order disqualification;

(g)   The outcome/status of the DMA Order entering the Exchange order book;

(h)   Modifications made by DMA client to DMA Order; and

(i)   Order match confirmation received from the ATS and the notification of the same when it was made to the DMA client.

The retention of the logging details must form part of the POs' record keeping requirements. POs must ensure that regular reviews of each DMA client's trading activities are carried out in order for the POs to review the assignment and setting of risk filters for the DMA client, where necessary

Assignment of DMA client to a DR

6.   Pursuant to Rule 701A.5(1)(b), each DMA client must be permanently assigned to at least one Dealer's Representative. Where a DMA client is not assigned to a DR, the Head of Dealing must be responsible for the DMA order(s).

Notification

7.   POs must notify the Exchange's Participants Supervision Division of the commencement of DMA service to clients no less than two (2) days prior to the commencement.

D)   REMINDER

POs providing DMA services are reminded of their obligations to comply with the existing Rules of Bursa Securities, including the following:

•   Pursuant to Rule 701A.2(2), POs must have in place all controls and measures in order to comply with all relevant provisions in the Rules of Bursa Securities

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including supervisory controls reasonably designed to manage the risks of front office operations; and

- POs must establish robust and reliable know-your-client ("KYC") practices pursuant to Rule 404.3(3).

E) DMA OPERATIONS DIRECTIVE AND DMA HANDBOOK

In conjunction with the above, the DMA Operations Directive issued on 17 December 2009 vide PO Circular R/R 21 of 2009 is revoked with effect from the Effective Date.

The DMA Handbook issued vide the same circular is amended. The amended DMA Handbook is marked as **Annexure 2**.

F) DIRECTIVES ON DMA ACCESS FEE

1. The DMA access fee is the same as that charged previously under section 5.6 of the Operations Directive and it is as follows:

DMA orders	One-Off Fee	Monthly Access Fee
1st capacity of 15 orders per second	Nil	RM6,000.00
Subsequent capacity of 15 orders per second	RM4,000.00	RM6,000.00

E.g.: Where a PO subscribes for 2 capacities of 15 orders per second, the PO pays:

	RM
Monthly fee for 1st capacity	6,000.00
Monthly fee for 2nd capacity	6,000.00
One-off fee for 2nd capacity	4,000.00
Total	16,000.00

Subsequently, the PO is required to pay the monthly access fees of RM12,000.00 for the 2 subscriptions.

2. A PO must pay the monthly access fee as mentioned in paragraph 1 in advance.

3. A PO must pay any other fees, levies or other charges imposed by the Exchange from time to time.

G) EFFECTIVE DATE

The above amendments to the Rules of Bursa Securities, the directives and amended DMA Handbook are effective from **5 September 2011 ("Effective Date").**

All rules, directives, circulars in force which make reference or contain provisions relating to the above matters shall have effect from the said Effective Date as if such reference or provisions relate to the amendments made herein.

Non-compliance with any of the directives stated above is a breach of the Rules of Bursa Securities.

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H)   CONTACT PERSONS

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This Circular is available at

http://www.bursamalaysia.com/website/bm/regulation/rules/bursa_rules/

REGULATION

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AMENDMENTS TO THE RULES OF BURSA SECURITIES IN RELATION TO THE REMOVAL OF PRESCRIBED PRE-TRADE RISK FILTERS FOR DIRECT MARKET ACCESS-EQUITIES

EXISTING PROVISION		NEW PROVISION
RULE 101.1 DEFINITION	**Direct Market Access or DMA** means the process by which orders to buy or sell contracts including any modifications and cancellations thereof are submitted into a DMA Infrastructure for execution in the ATS by persons referred to in Rule 701A without any intervention by a Dealer's Representative or being entered or re-entered by a Dealer's Representative.	**Direct Market Access or DMA** means the process by which orders to buy or sell contracts including any modifications and cancellations thereof are submitted ~~into a DMA Infrastructure~~ for execution in the ATS by persons referred to in Rule 701A without any intervention by a Dealer's Representative or being entered or re-entered by a Dealer's Representative.
	DMA Infrastructure means the infrastructure established and/or maintained by or for the Participating Organisation which facilitates Direct Market Access.	**[Deleted]** ~~DMA Infrastructure~~ ~~means the infrastructure established and/or maintained by or for the Participating Organisation which facilitates Direct Market Access.~~
RULE 701A. 2	**GENERAL** (1) A Participating Organisation may provide Direct Market Access if: (a) the Direct Market Access is effected through a DMA Infrastructure which complies with the terms stipulated by the Exchange; and (b) the Direct Market Access is only provided to persons who comply with the requirements stipulated in Rule 701A.4. (2) For the avoidance of doubt, other than the provisions in this Rule 701A, all other provisions in these Rules will also apply to Participating Organisations and Registered Persons when providing Direct Market Access.	**GENERAL** (1) A Participating Organisation may provide Direct Market Access if: (a) the Direct Market Access ~~is effected through a DMA Infrastructure which~~ complies with the terms stipulated by the Exchange; and (b) the Direct Market Access is only provided to persons who comply with the requirements stipulated in Rule 701A.4. (2) For the avoidance of doubt, other than the provisions in this Rule 701A, all other provisions in these Rules will also apply to Participating Organisations and Registered Persons when providing Direct Market Access. (3) Direct Market Access must only be made available for execution of on market transactions and not Direct Business Transactions.

AMENDMENTS TO THE RULES OF BURSA SECURITIES IN RELATION TO THE REMOVAL OF PRESCRIBED PRE-TRADE RISK FILTERS FOR DIRECT MARKET ACCESS-EQUITIES

EXISTING PROVISION		NEW PROVISION
	(3) Direct Market Access must only be made available for execution of on market transactions and not Direct Business Transactions.	
RULE 701A.3	**DMA INFRASTRUCTURE** (1) A Participating Organisation must send all DMA Orders through the DMA Infrastructure in the manner determined by the Exchange. (2) A Participating Organisation must obtain the approval of the Exchange prior to the establishment of the DMA Infrastructure or effecting any change to the DMA Infrastructure after the commencement of the operation of the DMA Infrastructure, unless determined otherwise by the Exchange. (3) A Participating Organisation must submit to the Exchange at least two (2) market days prior to the commencement of the operation of the DMA Infrastructure or prior to effecting any changes to the DMA Infrastructure, a written confirmation that the DMA Infrastructure and all the requirements in relation to the functionalities, connectivity, operation and security requirements of the DMA Infrastructure comply with these Rules, unless determined otherwise by the Exchange. (4) Even if a Participating Organisation has complied with the requirements in Rules 701A.3(2) and (3) above, it is the responsibility of the Participating Organisation to have all other controls and measures in place to comply with all the relevant provisions in these Rules. (5) A Participating Organisation must assume full responsibility	~~**DMA INFRASTRUCTURE**~~ ~~(1) A Participating Organisation must send all DMA Orders through the DMA Infrastructure in the manner determined by the Exchange.~~ ~~(2) A Participating Organisation must obtain the approval of the Exchange prior to the establishment of the DMA Infrastructure or effecting any change to the DMA Infrastructure after the commencement of the operation of the DMA Infrastructure, unless determined otherwise by the Exchange.~~ ~~(3) A Participating Organisation must submit to the Exchange at least two (2) market days prior to the commencement of the operation of the DMA Infrastructure or prior to effecting any changes to the DMA Infrastructure, a written confirmation that the DMA Infrastructure and all the requirements in relation to the functionalities, connectivity, operation and security requirements of the DMA Infrastructure comply with these Rules, unless determined otherwise by the Exchange.~~ ~~(4) Even if a Participating Organisation has complied with the requirements in Rules 701A.3(2) and (3) above, it is the responsibility of the Participating Organisation to have all other controls and measures in place to comply with all the relevant provisions in these Rules.~~ ~~(5) A Participating Organisation must assume full responsibility for the use of the DMA Infrastructure.~~ **AUTOMATED RISK FILTERS**

AMENDMENTS TO THE RULES OF BURSA SECURITIES IN RELATION TO THE REMOVAL OF PRESCRIBED PRE-TRADE RISK FILTERS FOR DIRECT MARKET ACCESS-EQUITIES

EXISTING PROVISION		NEW PROVISION
	for the use of the DMA Infrastructure.	A Participating Organisation must have appropriate automated risk filters to check or screen a DMA Order before the DMA Order is executed in the ATS, for the purpose of ensuring that the DMA Order does not affect the orderliness and fair functioning of the stock market of the Exchange.
RULE 701A.4	**RULE 701A.4 CLIENTS** (1) A Participating Organisation must only make Direct Market Access available to a client and the persons authorised by the client to act on behalf of the client in accordance with Rule 404.3(6)(b) who fulfill the following requirements: (a) having knowledge of the process of entering DMA Orders through the DMA Infrastructure; (b) having knowledge of the requirements in these Rules in relation to trading on the Market; and (c) having knowledge of the relevant laws pertaining to trading on the Market. (2) A Participating Organisation must execute a written agreement with the clients to whom it intends to provide Direct Market Access to and the agreement must address the following areas: (a) the duties, obligations and rights of the Participating Organisation and its clients in relation to the Direct Market Access; and (b) the clients' compliance with the Rules.	**RULE 701A.4 CLIENTS** (1) A Participating Organisation must only make Direct Market Access available to a client and the persons authorised by the client to act on behalf of the client in accordance with Rule 404.3(6)(b) who fulfill the following requirements: (a) having knowledge of the process of entering DMA Orders through the DMA Infrastructure; (b) having knowledge of the requirements in these Rules in relation to trading on the Marketstock market of the Exchange; and (c) having knowledge of the relevant laws pertaining to trading on the Marketstock market of the Exchange. (2) A Participating Organisation must execute a written agreement with the clients to whom it the Participating Organisation intends to provide Direct Market Access to and the agreement must address the following areas: (a) the duties, obligations and rights of the Participating Organisation and its clients in relation to the Direct Market Access; and (b) the clients' compliance with the Rules.
Rule 701A.6	**RULE 701A.6 ACTIONS BY THE EXCHANGE**	**RULE 701A.6 ACTIONS BY THE EXCHANGE**

AMENDMENTS TO THE RULES OF BURSA SECURITIES IN RELATION TO THE REMOVAL OF PRESCRIBED PRE-TRADE RISK FILTERS FOR DIRECT MARKET ACCESS-EQUITIES

EXISTING PROVISION	NEW PROVISION
(1) The Exchange may, at its absolute discretion and without notice take any of the actions enumerated in Rule 701A.6(2) where: (a) there is a breach or likelihood of breach of any provisions in Rule 701A; and/or (b) there is a commission or likelihood of a commission of any of the offences under the Capital Markets and Services Act. (2) Pursuant to Rule 701A.6(1), the following actions may be taken by the Exchange: (a) suspend or cease the provision of Direct Market Access by a Participating Organisation; and/or (b) to direct a Participating Organisation to suspend or cease the provision of Direct Market Access by the Participating Organisation to any one or more of the clients and the persons authorised by the clients.	(1) The Exchange may, at its absolute discretion and without notice take any of the actions enumerated in Rule 701A.6(2) where: (a) there is a breach or likelihood of breach of any provisions in Rule 701A; and/or (b) there is a commission or likelihood of a commission of any of the offences under the Capital Markets and Services Act. (2) Pursuant to Rule 701A.6(1), the following actions may be taken by the Exchange without applying the disciplinary proceedings stipulated in Rule 1303: (a) suspend or ~~cease~~ terminate the provision of Direct Market Access by a Participating Organisation; and/or (b) to direct a Participating Organisation to suspend or ~~cease~~ terminate the provision of Direct Market Access by the Participating Organisation to any one or more of the clients and the persons authorised by the clients.

[End of Rule Amendments]

BURSA MALAYSIA SECURITIES BERHAD

DIRECT MARKET ACCESS HANDBOOK

VERSION 2.0
DATED 5 SEPTEMBER 2011

Document Revision

Version	Author	Description of Change	Effective Date
1.00	Infrastructure Planning	• Published to the Industry on 6th Nov. 2009	9th November 2009
1.01	Infrastructure Planning	• Explanation on Section C – 4.7, 4.8 and 4.9 • Incorporate Section B – 3, 3.1 and 3.2	17th December 2009
2.0	Exchanges Operations	• Deleted Section A, B, D and E. • Revised Section C.	5th September 2011

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BACKGROUND

The introduction of Direct Market Access ("DMA") by Bursa Malaysia Securities Bhd ("Bursa Securities") will enable direct electronic access by clients to Bursa Trade, which is the Bursa Securities' Automated Trading System. Connectivity to Bursa Trade via Open Application Programming Interface ("API") will provide users with flexibility and choice of front-end systems and interface solutions.

The DMA regulatory framework encompasses the Rules of Bursa Securities, ~~the Operations Directive and the Participating Organisation Information Technology Security ("PO IT Security Code" G 240 IF 1999, 17.03.1999)~~ directives on pre-trade risk filters and the Bursa Malaysia Information Technology Security Code version 2.0 1998.

KEY OBJECTIVES

Bursa Securities is issuing herein the "Direct Market Access Handbook" ("DMA Handbook") with the following objectives:

1.   To highlight key obligations of Participating Organisations ("POs") under the Rules and the directives on pre-trade risk filters in relation to DMA.

2.   To provide guidance to POs in respect of practices recommended to be observed in relation to the discharge of their obligations under some of the Rules and the directives on pre-trade risk filters. Whilst not mandatory, these recommended practices are instructive of the minimum standards required to be observed by POs, which may adopt additional controls as deemed fit in relation to their DMA business.

3.   ~~To provide crucial information about the Bursa Securities DMA architecture, the technical and connectivity requirements.~~

4.   ~~To provide other relevant information, namely:~~

   ~~(a) the DMA directory;~~
   ~~(b) the various application forms; and~~
   ~~(c) terms and conditions for Independent Software Vendors ("ISVs")~~

DEFINITIONS

Unless otherwise stated, words or expressions defined in the Rules of Bursa Securities shall when used in the DMA Handbook, carry the same definition.

"Direct Market Access" or "DMA"   Rule 101.1(1) defines DMA as the process by which orders to buy or sell contracts including any modifications and cancellations thereof are submitted ~~into a DMA Infrastructure~~ for execution in the ATS by

|	persons referred to in Rule 701A without any intervention by a Dealer Representative or being entered or re-entered by a Dealer Representative.
"DMA Participant"	POs offering DMA.
"DMA Client"	Clients accessing Bursa Trade via DMA.

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[DELETED]SECTION A: OVERVIEW OF THE BURSA SECURITIES DMA ARCHITECTURE

1.   Bursa Securities DMA Technical Architecture

DESCRIPTION OF TECHNICAL ARCHITECTURE
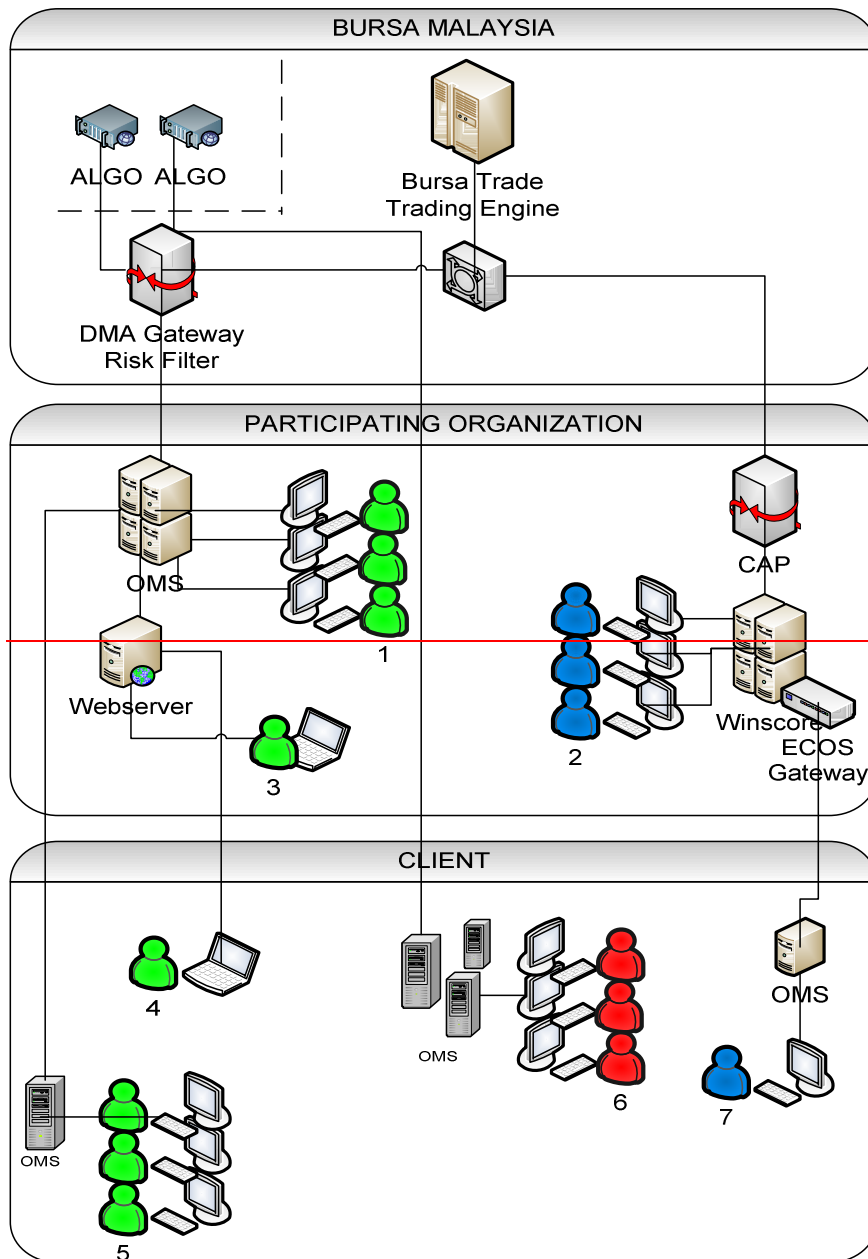
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1.1. DMA Participants Technical Architecture Options

With reference to the illustration of the DMA technical architecture in Section A.1.1 above, the DMA technical architecture options available to DMA Participants are summarized as follows:

Architecture Option Code	Order Entry	User Ref.	Activity*	Description
1. Blue	DRs, Electronic Trading Client	2,7	☎ 𝐸	Winscore infrastructure. Order Entry by Dealer's Representatives ("DRs") and some clients using ECOS Gateway
2. Green	DRs/ DMA Client	1, 3, 4, 5	☎ @ 𝐷	• DMA infrastructure at the DMA Participant's premises, connected to DMAG. • The hosting of a Web server by the DMA Participant enables internet trading.
3. Red	DMA Client	6	☎ 𝐷	• Bursa Hosted DMA Gateway infrastructure only. • Does not facilitate internet trading because there are no Web servers hosted by DMA Participant.

* Key to Table above:

☎ Telephone Order   @ Internet Order   𝐷 DMA   𝐸 ECOS Gateway

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2.   General Description of Provision of DMA by POs

RULE 701A.2 (1) HIGHLIGHTS THAT IN ORDER TO OFFER DMA, PO HAS TO ENSURE ITS DMA IS EFFECTED THROUGH A DMA INFRASTRUCTURE WHICH COMPLIES WITH THE TERMS STIPULATED BY BURSA SECURITIES AND TO BE PROVIDED TO DMA CLIENTS AND PERSONS WHO HAS KNOWLEDGE OF THE PROCESS FOR THE SUBMISSION OF ORDERS THROUGH THE DMA INFRASTRUCTURE, LAWS AND RULES IN RELATION TO TRADING ON THE EQUITIES MARKET AS OUTLINED IN SECTION C.1.1.1 AND SECTION C1.3.

RULE 701A.2 (2) FURTHER PROVIDES THAT ALL REQUIREMENTS IN THE RULES OF BURSA SECURITIES SHALL REMAIN APPLICABLE. DMA MUST ONLY BE MADE AVAILABLE FOR EXECUTION OF MARKET TRANSACTIONS AND NOT DIRECT BUSINESS TRANSACTIONS UNDER RULE 701A.2 (3).

3.   DMA Infrastructure[1] Options

   Based on the Bursa Securities DMA Infrastructure Options outlined in Section A.1.2 above, the DMA Participant may choose from any of the following solutions to offer connectivity by DMA Client's Access Device (front-end access solutions).

   3.1.   Proprietary DMA Infrastructure Solution

      DMA Participants may develop their own proprietary DMA Infrastructure for their DMA clients, subject to obtaining the necessary approval from Bursa Securities.

      The DMA Participant is required to also obtain approval from Bursa Securities when changes are made to its proprietary DMA Infrastructure. This solution requires the DMA Participant to host a DMA Order Management System ("OMS") server.

      This option will be utilising the Technical Architecture Option No.2 set out in Section A.1.2 above.

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[1] In the Rules of Bursa Securities, the term "DMA Infrastructure" is defined as the infrastructure established and/or maintained by or for the PO which facilitates DMA.

The Operations Directives defines DMA Infrastructure as the infrastructure which facilitates DMA and shall comprise all components, both substance and form, which are governed by the provisions established herein. The connectivity envisaged between Users and the ATS via the DMA Infrastructure is described below:

   User ⇌ Access Device ⇌ DMA Infrastructure ⇌ ATS

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3.2. ~~Third Party Software~~

~~DMA Participants may also choose to use Third Party Software from Approved DMA ISVs. The list of Approved ISVs is available on Bursa Malaysia's website. This solution requires the DMA Participant to host a DMA Infrastructure server. The requirements for ISVs are set out in the *"Guidelines on Certification for Independent Software Vendors (ISVs)"* set out in Section D.~~

~~This option will be utilising the Technical Architecture Option No.2 set out in Section A.1.2 above.~~

3.3. ~~Bursa Malaysia Hosted DMA Gateway ("Gateway")~~

~~DMA Participants may choose to connect to the Gateway, which has the following features:~~

~~3.3.1   DMA Client is connected directly to the Exchange DMA Server located physically next to the Bursa Trade matching engine at the Exchange.~~

~~3.3.2   Each DMA Participant has a risk monitoring screen remotely connected to the Gateway.~~

~~3.3.3   The Gateway caters to DMA Participants focusing on offering FIX 4.4 access points to their DMA Clients and Algorithmic Trading. However, it is possible to use the Gateway to offer Proprietary DMA front-end solutions and web interface.~~

~~3.3.4   The architecture of the Gateway is illustrated below:~~
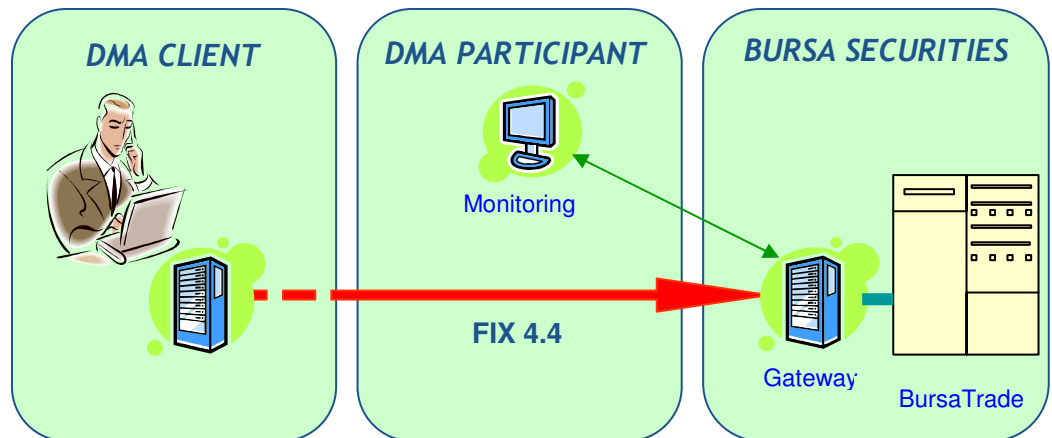
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3.3.5   In the instance where the DMA Participant uses the Gateway as the only means of offering DMA Infrastructure to their DMA Clients, this option will be utilising the Technical Architecture Option No.3 set out in Section A.1.2 above.

3.3.6   In the instance where the DMA Participant uses the Gateway as well as hosting additional OMS and/or Web servers, it will be utilising the Technical Architecture Option No.2 set out in Section A.1.2 above. The OMS server hosted at the DMA Participant's premises may support internally developed Proprietary DMA Infrastructure Solution or Third Party Software.

3.4. Approval of DMA Infrastructure

Rule 701A.3 (2) requires the DMA Participant to obtain the approval of Bursa Securities prior to the establishment or before effecting any changes to the DMA Participant's DMA Infrastructure. Rule 701A.3 (3) further provides that DMA Participants must provide written confirmation that the DMA Infrastructure and all the requirements in relation to the functionalities, connectivity, operation and security requirement of the DMA Infrastructure comply with the Rules at least two (2) market days prior to the commencement of the operation of the DMA Infrastructure or before effecting any changes to the DMA Participant's DMA Infrastructure. It is thus inevitable that the DMA Participant must assume full responsibility for the use of its DMA Infrastructure under Rule 701A.3 (5)

Please refer to Section 5 of the DMA Operations Directive for details on application procedures.

4.   Access by DMA Clients

Bursa Trade can be accessed directly via POs that are DMA Participants and DMA Clients are given the flexibility to select from a number of front-end access solutions from Approved DMA ISVs. The lists of DMA Participants and Approved DMA ISVs, which may be reviewed by Bursa Securities from time to time, can be found on Bursa Malaysia's website[2].

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[2]   http://www.bursamalaysia.com/website/bm/trading/DMA/

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[DELETED]SECTION B: GUIDELINES ON TECHNICAL AND CONNECTIVITY REQUIREMENTS

1.   General Description of Connectivity Requirements

Sections B.1, B.2 and B.3 are only applicable to the DMA Participant that hosts its own OMS and/or Web server (either Technical Architecture Options No.1, 3 4 and 5).

2.   Bursa Trade Access via FIX 4.4

The DMA Participant's own OMS must connect the Bursa DMAG, which is the Bursa Trade access point using the protocol FIX 4.4.

2.1.   Documentation

The FIX protocol documentation can be requested by emailing us at DMA@bursamalaysia.com

3.   Information Required for Production Access

The DMA Participant requires the relevant information from Bursa before going live with DMA Equities.

3.1.   Branch Code

Trading via DMA Equities require new branch setting to identify the orders by your back office. DMA Participants need not do any configuration with this new branch code for the OMS connected to the Bursa DMAG. The new branch code can be requested by submitting an official request letter indicating the broker type name as "DMAE" with branch address, telephone number and fax number.

Please address the request letter to:-
    Head, Participants Affairs
    Participants Supervision Division
    Regulation
    Bursa Malaysia Berhad
    12th Floor, Exchange Square
    Bukit Kewangan
    50200 Kuala Lumpur

3.2.   Terminal ID and System Access ID and Password

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The DMA Participant's own OMS connecting to the Bursa DMAG requires new Terminal ID, FIX Connection and Web Access IDs and passwords. Refer to Section E for the request for this information.

4.   **Network Connectivity Requirements**

4.1.   **Requirements for DMA Participants**

4.1.1   DMA Participants must use a lease line to gain access to Bursa Trade's production environment.

4.1.2   DMA Participants must use an ISDN line and set up the ISDN router to gain access to the Bursa Trade DMA testing environment.

4.1.3   The ISDN router is recommended to have the following configuration:

NO.	PRODUCT CODE	DESCRIPTION
-	**Router & Module**	
1.	CISCO 1721, or CISCO 1841	Modular Router w/1xFE, 2 WAN slots, 16 FL/64 DR, or Modular Router w/2xFE, 2 WAN slots, 32 FL/128 DR
2.	CAB-ACU	Power Cord UK
3.	WIC-1B-S/T	Port ISDN WAN Interface Card (dial and leased line) **Note: If 1800 series router is used, the product code of this module is "WIC-1B-S/T-V3".
-	**Cables**	-
4.	UTP CABLE	UTP Cable, 10 feet (**x 2)
	Optional item	
5.	Switch/hub	Switch/hub to connect the router & application server. **Note: The UTP crossover cable can be used to connect the ISDN router & application server. This will not require to have switch/hub installed.

4.1.4   Section 4.1 of the DMA Operations Directive requires all physical and logical connections between the ESZ[3] and the POSZ[4] to be solely performed by the Exchange or its appointed vendors/representatives.

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[3] ESZ refers to the Exchange's Secured Zone where the Exchange's IT Infrastructure resides. The Automated Trading System (Bursa Trade) shall be deemed to reside within the ESZ.

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~~4.2. Requirements for DMA Clients~~

~~4.2.1   DMA Clients may use leased lines, private network or solutions offered by connectivity vendors to connect to the DMA Participant's DMA Infrastructure. The minimum bandwidth requirement for connectivity by DMA Clients is 64 kbps. DMA Participants should recommend the appropriate bandwidth to be met by their DMA Clients with regard to the trading activity undertaken.~~

~~5. Compliance with the IT Security Standards~~

~~In setting up its DMA Infrastructure, and overseeing the connectivity of its DMA Clients to its DMA Infrastructure, the DMA Participant must comply with the PO IT Security Code. Detailed IT Security Procedures must be implemented to achieve the standards in the PO IT Security Code, and it is the responsibility of the DMA Participant to develop and document procedures in line with their operations, including those relating to their DMA Infrastructure.~~

~~6. DMA Testing Information and Requirements~~

~~6.1. Technical and Connectivity Requirements for Testing~~

~~6.1.1   DMA Participants may opt for either the CISCO 1721 or CISCO 1841 model. Please note that CISCO has announced the end of life for the CISCO 1721 model but will continue to support it. Bursa recommends DMA testing participant to opt for CISCO 1841 if it is a new procurement.~~

~~6.1.2   The IP address information and the sample configuration of ISDN router will be provided later and the ISDN dial-up speed will be limited to 128Kbps if it is equipped with one unit of 'WIC-1B-S/T-V3' module and one ISDN line.~~

~~6.2. Testing Facilities~~

~~6.2.1   The testing platform will be made available from 9:00 am to 5:00 pm Malaysian time, Mondays to Fridays (Bursa Malaysia working days only). From time to time, Bursa Securities may have to interrupt testing during the day for maintenance. In the event of such a need, all test users will be duly informed.~~

~~[4]   POSZ refers to the PO's Secured Zone. The POSZ shall be the designated zone where the PO's physical and logical infrastructure resides for the purpose of connecting with the ESZ.~~

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~~6.3.~~ ~~Testing on DMA Participant's Infrastructure (Non-Gateway)~~

~~6.3.1~~ ~~DMA Participants~~

~~The DMA Participant and the ISV (if any) should ensure that testing is done for each message and possible values on the different fields contained in the FIX 4.4 Message Specifications.~~

~~6.3.2~~ ~~DMA Clients~~

~~For DMA Clients testing on a DMA Participant's Infrastructure, other than the Gateway, the DMA Participant and the ISV (if any) should ensure that testing is done for each message and possible values on the different fields contained in the FIX 4.4 Specifications.~~

~~6.4.~~ ~~DMA Clients Testing on the Gateway~~

~~Procedures and Forms relating to DMA Clients' testing on the Gateway are set out in the following appendices:~~

- ~~Appendix A: Bursa DMA Gateway – Testing and Creation of ID~~
- ~~Appendix B: GL TRADE DMA Gateway – Testing and Creation of ID~~

~~6.5.~~ ~~DMA Clients Testing on DMA Participant's Infrastructure~~

~~For DMA Clients testing on a DMA Participant's Infrastructure, other than the Gateway, the DMA Participant and the ISV (if any) should ensure that testing is done for each message and possible values on the different fields contained in the Private Messages (SLE) Specifications.~~

~~6.6.~~ ~~DMA Testing Results~~

~~Further to the conduct of DMA Testing, the DMA Participant should be assured of the following:~~

- ~~That the DMA Client has conducted the testing properly; and~~

- ~~That it is satisfied that the system connectivity of the DMA Client to the DMA Infrastructure will not have any impact on the integrity and efficiency of Bursa Securities' trading facilities.~~

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SECTION C: GUIDELINE ON RISK MANAGEMENT REQUIREMENTS

1. **Conditions for Connectivity of DMA Clients**

1.1. **Clients' knowledge of the process for the submission of DMA orders ~~through the DMA Infrastructure,~~into the Exchange's order book including Laws and Rules in relation to Trading on the Malaysian Securities Market**

    1.1.1   Rule 701A.4(1) provides that DMA Participants shall take reasonable steps to ensure that a DMA Client and persons authorised by the DMA Client have :

- knowledge of the process of entering DMA orders into the Exchange's order book~~through the DMA Infrastructure~~;
- knowledge of the requirements in the Rules in relation to trading on the market; and
- knowledge of the relevant laws pertaining to trading on the Market

    1.1.2   For the purpose of discharging its obligations under Rule 701A.4(1), we recommend DMA Participants to have procedures in place to ensure that the DMA Client demonstrates that it has knowledge of the matters set out in Rule 701A.4(1) (refer to paragraph 1.1.1 above). For example, the level of knowledge of DMA Clients can be assessed by asking relevant questions on the matters set out in Rule 701A.4(1). The DMA Participant should also implement review procedures, such as discussions with DMA Clients and updates, to ensure that the DMA Client's required level of knowledge remains satisfactory.

        In this respect, we recommend that the DMA Participant should provide its DMA Clients with information, guidance and training[5] on the following areas:

- Bursa Trade features and functionalities i.e. trading phases, market timing, matching mechanism, order types, execution conditions and instrument state[6];
- Contract specifications of products listed on Bursa Securities; and

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[5] The requirements for the DMA Participant to train the DMA Client in the requirements of the Exchange Rules in relation to the entry of orders and trading and other applicable requirements, and to ensure that revisions and updates to the Laws, Exchange Rules are promptly communicated to the DMA Client should be incorporated in the Agreement between DMA Participant and DMA Client. Refer paragraph 1.3.1 on Recommended Terms of Agreement.

[6] Refer to the "Participating Organisation's Trading Manual" in Bursa Malaysia's website at http://www.bursamalaysia.com/website/bm/regulation/rules/bursa_rules/downloads/bm_cir_rr2_110411.pdf under R/R 2 of 2011.

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- Prohibited trading practices and trading offences.

1.1.3   In relation to DMA Clients accessing Bursa Trade via Internet (refer to paragraph 1.2.2 below), a DMA Participant may rely on a confirmation from the DMA Client that the Client and the persons authorised by the Client have knowledge of the matters set out in Rule 701A.4 (1).

1.2. DMA Client – Criteria and Requirements

The DMA regulatory framework encompasses the Rules of Bursa Securities and the ~~DMA Operations Directive~~ directives on pre-trade risk filters, and regulates all forms of access to Bursa Trade where there is no manual intervention by a PO. This includes direct connectivity to the DMA Participant's Order Management System ("OMS") server ~~or the Gateway~~ to facilitate order routing and algorithmic trading by buy-side institutions (sometimes referred to as "direct access"), and internet trading to facilitate retail participation in the equities market.

1.2.1   DMA Clients Accessing Bursa Trade via an Access Device connected to a DMA Participant's OMS server ~~or Gateway~~

The DMA Participant should limit access to Bursa Trade via an Access Device connected to a DMA Participant's OMS server ~~or the Gateway~~, to DMA Clients which are subjected to Client Due Diligence ("CDD").

There are two (2) types of CDD – simplified and enhanced. Clients of regulated nature of business may be subjected to simplified CDD whilst Clients of unregulated nature of business may be allowed to connect "directly" to the DMA Participant's OMS server ~~or Gateway~~ only if enhanced CDD measures (refer paragraph 1.2.3 below) and careful consideration of the client risk profile have been carried out.

1.2.2   DMA Clients Accessing Bursa Trade via Internet

Bursa Securities envisages that Clients that access the market via internet ("Internet Clients") will comprise primarily retail clients and should be subject to enhanced CDD measures (refer paragraph 1.2.3 below), unless there are special mitigating circumstances e.g. where reliable information on the Client can be obtained publicly, or where the Client has a good track record.

Internet Clients must be connected via an additional Web server, which is connected to an OMS server ~~or Gateway~~. The Web server may contain enhanced security features and added risk management controls/filters.

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1.2.3   DMA Client Due Diligence – Know Your Client ("KYC") Requirements

Rule 404.4 (1) requires a PO to exercise due diligence in learning the essential facts as to the Client and its or his investment objectives and financial situation prior to the commencement of trading. The requirements to monitor and report suspicious transactions are also set out under the Anti-Money Laundering Act 2001 [7] and the Guidelines on Prevention of Money Laundering and Terrorism Financing for Capital Market Intermediaries[8] issued by the Securities Commission. In this respect, the DMA Participant must ensure that all reasonable steps are taken to ensure adherence to these KYC requirements.

We recommend that all reasonable steps should be taken to accurately establish the DMA Client's business and financial background, and its' investment objectives. The DMA Participant should be assured of the financial probity of the DMA Client and that it has sufficient financial resources to meet its obligations.

Enhanced CDD should be undertaken for clients with higher risk profiles, whilst simplified CDD may be conducted for clients with lower risk profiles e.g. regulated entities. The KYC measures undertaken in relation to eligibility requirements for DMA Clients should be reviewed regularly, at least on an annual basis. Suggested and recommended data to be obtained for simplified or enhanced CDD are as follows:

Client Type	Simplified CDD	Enhanced CDD
Individual	- IC or passport - Address – residential and permanent address, if different	- IC or passport - Address – residential and permanent address, if different - Occupation - Latest 3 months' payslip or latest income tax statement or bank statement

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[7] http://www.agc.gov.my/Akta/Vol.%2013/Act%20613.pdf
[8] Revised edition issued in January 2007 http://www.sc.com.my/eng/html/resources/guidelines/2007%20AMLA-GL%20Final_1.pdf

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Client Type	Simplified CDD	Enhanced CDD
Corporation	• Certification of Incorporation • Memorandum & Articles of Association • Board Resolution on opening of account • Specimen signature of authorised signatories	• Certification of Incorporation • Memorandum & Articles of Association • Board Resolution on opening of account • Specimen signature of authorised signatories • Information on the nature of business and its corporate structure • Latest audited financial statement and/or management financial statements • Latest 3 month bank statement • Power of Attorney (if applicable)

In carrying out the above, the PO should exercise due diligence and be aware of any suspicious client behaviour(s) that warrant further enquiry or probe (herein referred to as "Red Flag"). Some of the situations of Red Flag are as follows:-

• a series of transactions or activities which are senseless or irrational in nature (e.g. constantly buying and selling securities at a loss)
• the client requests to pay third parties or receives funding from third parties
• the client is reluctant to co-operate in verifying his/her identity
• the client frequently makes last minute changes to payment instructions
• orders are received from persons other than the account holder.

POs should properly monitor other doubtful circumstances where clients' accounts may be subjected to abuse, including but not limited to cases where a few clients' accounts carry identical correspondence addresses.

Any unexplained information should always be investigated.

Assessments of the expected pattern of the activity of the client on a continuous basis throughout the business relationship with the client should also be considered.

1.2.4   Record of DMA Clients

~~Refer to~~ Rule 404.4(2) requires Participating Organisations to maintain the following records in respect of each client's account:–

(a) date of opening of the account;

(b) client's financial position;

(c) name of the officer which approved the opening of the account and the date of approval;

(d) the types of transactions for which the account is approved;

(e) in respect of the transactions effected under the account, the following information –

i) particulars of all transactions including amount of commissions charged in respect of each transaction and type of transactions;

ii) current position of the account including compliance with any margin set by the Participating Organisation;

(f) the Dealer's Representative handling the account; and

(g) where credit facilities have been granted to the client, the information as to whether the client is a spouse, parent or child of any of the Commissioned Dealer's Representatives of the Participating Organisation.

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1.3. Agreement between DMA Participant and DMA Client

Rule 701A.5 (1) stipulates that DMA Participants is deemed to be the principal in relation to all trades effected through DMA and the Exchange will not recognise the interest of any third party and that all DMA Orders are deemed as orders submitted for execution in the ATS by a Dealer's Representative on behalf of a client.

Rule 701A.4 (2) requires the DMA Participant to execute a written agreement with DMA Clients to address the following areas:

• The duties, obligations and rights of the DMA Participant and its Clients in relation to DMA; and

• The Clients' compliance with the Rules.

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1.3.1   Recommended Terms of Agreement

The following terms are recommended to be incorporated in the written agreement between the DMA Participant and the DMA Client to ensure that crucial provisions are agreed to prior to trading, to mitigate disputes, and to empower DMA Participants to take immediate preventive and corrective measures with respect to fair and orderly trading.

- The DMA Client shall enter orders and trade in compliance with the Rules of the Exchange and other applicable regulatory requirements;

- Specific parameters defining the orders that may be entered by the DMA Client are stated, including restriction to specific instruments or size of orders, and the DMA Participant shall have the right to reject orders that do not fall within the designated parameters of authorised orders;

- The DMA Participant has the right to reject an order for any reason;

- The DMA Participant has the right to change or remove an order in the Order Book and has the right to cancel any trade by the DMA Client for any reason;

- The DMA Participant has the right to discontinue accepting orders from the DMA Client at any time without notice;

- The DMA Participant agrees to train the DMA Client in the requirements of the Exchange Rules in relation to the entry and trading of orders and other applicable requirements;

- The DMA Participant agrees to ensure that revisions and updates to Laws and Rules are promptly communicated to the DMA Client.

~~**2.   System Security and Access Controls**~~

~~**2.1 DMA Infrastructure Users & Administrators**~~

~~The DMA Participant must ensure security of access to the DMA Infrastructure at all times to ensure that unauthorised persons are denied access to the DMA Infrastructure. Please refer to:~~
- ~~Section 3.1 of the DMA Operations Directive for the requirements in relation to the Users and Administrators of the DMA Infrastructure~~
- ~~The PO IT Security Code – Baseline Procedures for ITSS 3: Logical Access Controls.~~

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~~3~~2.   DMA Participant Internal Control Requirements

The DMA Participant shall have written policies and procedures and comply with the following internal control requirements in relation to the provision of connectivity of its OMS server~~DMA Infrastructure~~ to DMA Clients.

~~3~~2.1 Internal Controls: Areas of Focus for DMA Participants

Whilst the fundamental requirements of effective internal control as set out in the ~~"Compliance~~ Bursa Malaysia Guidelines for Compliance Officers~~Equities Brokers"~~ ("Compliance Guidelines") ~~(dated 23.07.1998 and the implementation date was 1.10.98)~~ remain relevant for all POs regardless of the medium of communication or delivery, there are a few critical internal control areas in relation to DMA trading that the DMA Participant should focus on:

~~3~~2.1.1 Segregation of Duties

It is stated in the Compliance Guidelines that there must be strict separation between the credit control function, and the trading, dealing and marketing functions to ensure independence, and mitigate the risk and consequences of conflicts of interests.

It is recommended for DMA Participants to segregate the DMA direct execution desk from other Agency desks to ensure confidentiality of DMA Client Orders. Anonymity, along with increased control and speed of execution are the key benefits of trading via DMA, and the DMA Participant should endeavour to maximise these features.

~~3~~2.1.2 Credit Controls

It is stated in the Compliance Guidelines that POs must ensure that suitable credit limits are set for their clients. It is recommended that the CDD assessment of DMA Client's financial probity must be decided independently of the trading, dealing or marketing functions.

We recommend for DMA Participants to consider enforcing stricter credit control for clients requiring enhanced CDD requirements, especially in relation to overseas accounts. These may include the collection of deposits and/or collateral as guarantee of performance, restriction on total open positions.

It is recommended that credit limits and any subsequent variation of credit limits are authorised by a senior management officer of the DMA Participant who is independent of trading, dealing and marketing functions, and is not associated with the DMA Client in question.

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It is stated in the Compliance Guidelines that POs must ensure that proper systems and control procedures are implemented to ensure that their clients do not trade beyond the credit limits imposed. Further, the ~~Operations Directives on Risk Filters~~directives on pre-trade risk filters states that risk filters (automated pre-execution checks) must be undertaken for all DMA Clients' orders. The risk filters are covered in greater detail under paragraph 2.2 below.

~~3~~2.1.3 Post-Trade Review

DMA Participants should also ensure that proper and adequate post trade risk management monitoring systems and procedures are set in place to monitor risk exposure of DMA Clients' trades with respect to daily net cash position, daily maximum total capital engaged, etc. DMA Participants should ensure that account activity is monitored at least on a daily basis.

In addition, we also recommend that regular analysis of trading behaviours ought to be carried out to complement CDD measures and also to detect any possibilities of market offences that may potentially arise.

~~3~~2.2 Risk Filters

~~Section 3.2.1 of the DMA Operations Directive requires DMA Participants to define, install and document a set of filters and/or checkpoints with pre-defined criteria and values responsible for the Validation of each and every order.~~

DMA Participants, in providing DMA services, must ensure the following principles are adhered to at all times:-

　　a) Fair and orderly trading;
　　b) Prevention of trade error; and
　　c) Manage trade exposures / credit / counterparty risks.

DMA Participants need to install appropriate automated risk filters to help them comply with the above principles.

Each DMA Participants must determine what constitutes "appropriate filters" for their business. The nature and scope of the filters adopted is a matter for the DMA Participants to determine based upon its regulatory risk profile and what the DMA Participants are comfortable with. They have the discretion to decide and impose the pre-trade risk filters subject to the 3 mandatory types of pre-trade risk filters prescribed in the directives and set out below in paragraph 2.2.1.

These risk filters, with pre-defined criteria and values, will check and screen all DMA orders before these DMA orders are executed in the ATS, for the purpose of

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ensuring that these DMA orders do not pose any risk to the DMA Participants and to the market.

~~Filter and filter parameters provide the principal means in the validation of each Order to ensure compliance with Rules in relation to trading on the market.~~ Risk ~~F~~filters are intended to establish points at which DMA orders are tested and passed to the market only when pre-set conditions are met.

The DMA Participants must regularly review the risk filters set for each DMA client as the DMA Participants will be the responsible parties bearing their clients' risk exposure.

~~3~~2.2.1 Mandatory **Minimum Types of Pre-Trade** Risk Filters

Subject to paragraph 2.2, DMA Participants must, at the very least, establish the following types of pre-trade risk filters to screen through every DMA order prior to entry into the Exchange's order book as~~install the filters~~ set out in ~~Section 3.2.2 of~~ the ~~Operations Directives~~ directives on pre-trade risk filters ~~and as stated below~~: ~~Examples of various risk filters and how they may be implemented are set out in paragraph 3 below.~~

i)   Trade exposure risk filter
      This type of filter manages the maximum exposure in which a client may trade. It may be set on the basis of gross or net or both.

ii)   Order size risk filter
      This type of filter manages the maximum DMA order size which a client may enter into the Exchange order book at any single time. It may be set on the basis of value in RM or in quantity (units) or both.

iii) Price limit risk filter
      This type of filter manages the maximum price of DMA order which a client may enter into the Exchange order book at any single time. It may be set on the basis of percentage or tick/bids away from the lst traded price or in combination.

The above are the minimum pre-trade risk filters that the DMA Participants must establish.

DMA Participants must ensure regular review is carried out to refine and adjust the pre-trade risk filters and the screening process. Examples of various risk filters and how they may be implemented are set out in paragraph 3 below.

~~Type of Filter~~	~~Filter Name~~	~~Requirement~~

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~~Type of Filter~~	~~Filter Name~~	~~Requirement~~
~~Cash Position~~	~~Daily Net Cash Position~~	~~Either one is mandatory~~
	~~Daily MAX Total Capital Engaged~~	
~~Order~~	~~Max Capital Engaged per Order~~	~~Mandatory~~
~~Manipulation~~	~~% Far from Market Spread~~	~~Either one is mandatory~~
	~~% Far from Last Traded Price~~	
	~~Small Order Quantity far from Last Traded Price~~	~~Optional~~
~~Authorization~~	~~Market Type Authorization~~	~~All are mandatory~~
	~~Instrument Type Authorization~~	
	~~Order Technical Origin Authorization~~	

3~~2~~.2.2 Filter Parameters

Filter parameters are variables <u>set at the respective pre-trade risk filters in terms of pre-defined criteria and values responsible for the checking and screening of DMA orders. The directives on pre-trade risk filters require DMA Participants to establish policies and procedures on which to provide internal guidance on the setting of the filter parameters for the risk filters. These parameters</u> ~~within filters that~~ can be changed to modify the effectiveness of the filters without changing the nature of the rule to which the filter applies. Any changes, including intra-day changes to filter parameters must be controlled, monitored, authorized and recorded properly.

<u>DMA Participants should not give its DMA clients the same rights or capacity as granted to Dealer's Representative ("DR") in setting the filters parameters because they are not licensed as a DR.</u>

3~~2~~.2.3 ~~Section 3.2.4 of the Operations Directive requires~~<u>It is recommended that</u> the tracking and utilisation of the filters established for the purpose of <u>checking and screening the DMA orders</u>~~Validation~~ to be updated on real-time on-line basis.

In the event that an order is rejected by a risk filter, it is recommended that both the DMA Client and the DR should each receive a rejection notice. The DR will normally contact the DMA Client to assess how to handle the rejection. Any actions taken to manage an exception must be in accordance with the DMA Participant's internal control policies and procedures, and logged and appropriately documented.

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~~3~~2.3 Maintenance of DMA Infrastructure Activity Log

~~Section 3.4 of the DMA Operations Directive requires~~ DMA Participants ~~should~~ must establish and maintain a DMA ~~Infrastructure~~ activity log ("Log") to record all the events/activities/processes of all Users and Administrators, encompassing the full order flow.

Access to the Log shall be restricted to Administrators and any other authorised person/(s) as may be designated by the DMA Participant. Any work carried out on this Log shall be recorded with full details. The date and time references in the Log shall be that of the ATS. In relation to the above directive, the following applies:-

~~3~~2.3.1 ~~Minimum~~ Details to be Recorded in the Log

~~Refer to Section 3.4.3 of the DMA Operations Directive.~~

(i)   References to the DMA client/Dealer's Representative responsible for the DMA Order;

(ii)   Date and time-stamp;

(iii)   Client sign-on;

(iv)   Client sign-off and the manner in which the sign-off was carried out i.e. manual or automated;

(v)   Order identification/sequence number;

(vi)   The outcome/status of the risk filter screening;

(vii)   The outcome/status of the DMA Order entering the Exchange order book;

(viii) Modifications made by DMA client to DMA Order; and

(ix)   Order match confirmation received from the ATS and the notification of the same when it was made to the DMA client.

~~3~~2.3.2 Recommended Practices in Storage of DMA Log and Records

The DMA Participant should ensure that DMA records can be easily retrievable by authorised personnel, stored securely and that proper back-up controls are kept. The DMA Participant must be able to produce a complete audit trail of transactions, from receipt of an order to its settlement upon request by the Exchange.

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The DMA Participant should also ensure that appropriate backup of DMA records are kept with reference to recommendations of PO IT Security Code – Baseline Procedures for ITSS 6: Computer Operations, Section 6.4 "Backup Storage Media Protection".

~~3~~2.4   Error and/or Exception Handling

Refer to ~~Section 3.5~~ Item 4 of the ~~DMA Operations Directive~~ directives on pre-trade risk filters for the requirements on risk filters' error and/or exception handling. We recommend that any errors, rejections and exceptions be monitored and investigated/resolved on a daily basis, and a review of the actions taken in relation to errors and/or exceptions should be undertaken by the Compliance Officer on a regular basis.

~~4~~3.   Examples of ~~How~~ Pre-Trade Risk Filters ~~Are Calculated~~That May Be Implemented

~~4~~3.1 Daily Net Cash Position

The DMA Participant ABC initializes the DNCP for the Client XYZ before the start of Trading Day [Tues, Dec 16, 2008]

Order Entry & Execution

Order	Price	Qt	Side	New DNCP	Event
				RM 1,000.000	
1	RM 10.000	10	Buy	RM 900.000	Order Entry
1	RM 10.000	10	Buy	unchanged	Order Execution
2	RM 12.000	5	Sell	unchanged	Order Entry
3	RM 14.000	5	Sell	unchanged	Order Entry
2	RM 12.000	5	Sell	RM 960.000	Order Execution
3	RM 14.000	3	Sell	RM 1,002.000	Order Execution
4	USD 2.00	10	Buy	RM 930.751	Order Entry

Order Modification & Matching @ book price

5	RM 10.000	10	Buy	RM 830.751	Order Entry
5	RM 11.000	10	Buy	RM 820.751	Order Modification
5	RM 10.500	10	Buy	RM 825.751	Order Execution

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Partial Matching & Order Cancellation

6	RM 5.000	20	Buy	RM 725.751	Order Entry
6	RM 5.000	5	Buy	RM 725.751	Part Execution
6	RM 5.000	15	Buy	RM 800.751	Order Cancel

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3.2 Daily MAX Total Capital Engaged

The DMA Participant ABC initializes the DMTCE for the Client XYZ before the start
of Trading Day [Tues, Dec 16, 2008] based on his RM 1,000 Cash + 30% of his
collaterals (RM 1,500 Equities marked to market).
Equities: RM 1,500   /   Warrant: RM 900

Instrument	Order	Price	Qt	Side	Client Pos/DMTCE	Event	Instr. Type
					RM 0 / RM 1,500		
Bursa	1	RM 10.000	10	Buy	RM 100.000	Order Entry	Share
TM	2	RM 15.000	20	Buy	RM 400.000	Order Entry	Share
Bursa Warrant	3	RM 1.000	1000	Buy	**REJECTED**	Order Entry	Warrant
Bursa Warrant	4	RM 1.000	500	Buy	RM 500.000	Order Entry	Warrant
Tenaga	5	RM 6.500	150	Buy	RM 1,375.000	Order Entry	Share
Bursa	6	RM 14.000	10	Sell	unchanged	Order Entry	Share
Bursa	6	RM 14.000	10	Sell	RM 1,235.000	Order Exec	Share

3.3 Max Capital Engaged per Order

The DMA Participant ABC initializes the MCEO for his client

Instrument	Order	Price	Qt	Side	Order Value	Event
Example 1					**MCEO = RM 200**	
Bursa	1	RM 10.000	10	Buy	RM 100.000	Order Entry
TM	2	RM 15.000	20	Buy	RM 300.000	**REJECTED**
Bursa	3	RM 20.000	11	Sell	RM 220.000	**REJECTED**
Example 2					**MCEO = 0.001% with RM 100,000,000**	
Genting	3	RM 27.000	5000	Buy	RM 135,000.000	**REJECTED**

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3.4   % Far from Market Spread

The DMA Participant ABC set the FMS for the Client XYZ to 15% for the groups 01, 02 and 03. All the other groups are set to 20%.

Bursa	Bid	5.35
	Ask	5.45

Genting	Bid	20
	Ask	21

Instrument	Grp	Order	Price	Qt	Side	FMS Check	Accepted?
Bursa	01	1	RM 5.400	10	Buy	Price ?>Ask+15%	OK
Bursa	01	2	RM 5.450	10	Buy	Price ?>Ask+15%	OK
Bursa	01	3	RM 5.700	10	Buy	Price ?>Ask+15%	OK
Bursa	01	4	RM 6.300	5	Buy	Price ?>Ask+15%	6.30 > 6.267
Bursa	01	5	RM 5.000	5	Sell	Price ?<Bid-15%	OK
Bursa	01	6	RM 4.540	3	Sell	Price ?<Bid-15%	4.54 < 4.548
Genting	05	7	RM 16.500	8	Sell	Price ?<Bid-20%	OK
Genting	05	8	RM 15.800	3	Sell	Price ?<Bid-20%	15.80 < 16

3.5   % Far from Last Traded Price

The DMA Participant ABC set the FLTP for the Client XYZ to 15%

LTP=	5.5	Bid	Ask
		5.35	5.45

Order	Price	Qt	Side	Check	Accepted?
1	RM 5.400	10	Buy	Price ?>LTP+15%	OK
2	RM 5.450	10	Buy	Price ?>LTP+15%	OK
3	RM 5.700	10	Buy	Price ?>LTP+15%	OK
4	RM 6.300	5	Buy	Price ?>LTP+15%	OK
5	RM 6.350	5	Buy	Price ?<LTP+15%	6.35 > 6.325
6	RM 4.540	3	Sell	Price ?<LTP-15%	4.54 < 4.675

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3.6   Small Order Quantity far from Last Traded Price

The DMA Participant ABC set the FLTP for the Client XYZ to 20% and 80 shares.

LTP=	5.5	Bid	Ask	Qt=80
		5.35	5.45	20%

Order	Price	Qt	Side	Qt triggered	Accepted?
1	RM 7.000	100	Buy	No (100 > 80)	Not checked
2	RM 3.000	100	Buy	No (100 > 80)	Not checked
3	RM 7.000	80	Sell	Yes (80 = 80)	Yes
4	RM 3.000	80	Sell	Yes (80 = 80)	No (3 < 5.5 - 20%)
5	RM 5.900	50	Buy	Yes (50 < 80)	Yes
6	RM 5.000	50	Sell	Yes (50 < 80)	Yes
7	RM 7.000	10	Buy	Yes (10 < 80)	No (7 > 5.5 + 20%)
8	RM 3.000	10	Buy	Yes (10 < 80)	Yes
9	RM 6.100	10	Sell	Yes (10 < 80)	Yes
10	RM 9.000	10	Sell	Yes (10 < 80)	Yes

3.7   Market Type Authorization

By default, all the market types are authorized for all "sponsored access" clients. If the DMA Participant wants to restrict the access for a given client, all the <u>authorized</u> market types have to be listed using this risk filter.

The market codes are the following:
N   :   Normal Market
B   :   Buying-in Market
O   :   Odd-lot Market

They should be listed separated by comma.

Examples:

DMA Participant ABC authorizes the Client XYZ trade on "N,B". In this case the client is not authorized to trade on Odd-lot.

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1. The DMA Participant DEF authorizes the Client TUV trade on Normal Market only "N"

	ISIN Code	Name	Market	Status
Order on	MY**O**1818OR---	Bursa	Odd lot	Rejected
Order on	MY**I**1818-----	Bursa	Buying in	Rejected
Order on	MY**N**1818-----	Bursa	Normal	Accepted

3.8 Instrument Type Authorization

By default, all the instrument types are authorized for all "sponsored access" clients. If the DMA Participant wants to restrict the access for a given client, all the authorized instrument types have to be listed using this risk filter.

The instrument codes are the following:
O	:	**Ordinary share**
P	:	**Preference**
T	:	**Property Trust**
F	:	**Close End Fund**
W	:	**Warrants/TSR**
C	:	**Call Warrants**
L	:	**Loan Stocks**
N	:	**Loan Notes**
D	:	**Debentures**
B	:	**Bonds**
E	:	**ETF**

They should be listed separated by comma.

Examples:

1. The DMA Participant ABC authorizes the Client XYZ to trade on:
O,P,T,F,L,N,D,B,E
This client is not authorized to trade on Warrants and Call Warrants.

2. The DMA Participant DEF authorizes the Client TUV to trade on: N, D, B, E, O, P, T, F

	ISIN Code	Name	Market	Status
Order on	MYN2003**W**B---	Kulim (M)	Odd lot	Rejected

3.9 Order Technical Origin Authorization

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This risk filter is set by the DMA Participant according to the agreement it has with its client. If this risk filter is not set, all the activities are authorized for a client. This risk filter must be set correctly before authorizing a client to trade via DMA.

The activities are listed below:
A   :   Other Front-end than Winscore
R   :   RSS sell order
P   :   PDT sell order
I   :   Internet Trading
J   :   Internet Trading RSS sell order
K   :   Internet Trading PDT sell order
T   :   Algorithmic Trading
V   :   Algorithmic Trading RSS sell order
W   :   Algorithmic Trading PDT sell order
D   :   Direct Market Access – Sponsored Access
E   :   Direct Market Access – Sponsored Access – RSS sell order
F   :   Direct Market Access – Sponsored Access – PDT sell order

Notes:
a) A client should not be given P.
b) A dealer should not be given D, E, F.

If you setup D for a DMA client, he won't be able to send RSS order.

Example: The DMA Participant ABC has a DMA Client XYZ, who is a PDT. Therefore, the authorized values are: W, F.
If the Client XYZ tries to send an order with the tag 9941 set to D, his order will be rejected.

SECTION D: GUIDELINES ON CERTIFICATION FOR INDEPENDENT SOFTWARE VENDORS (ISVS)

1.   ISV Eligibility Requirements

1.1.   The following ISVs may apply to become Approved Vendors:

1.1.1   ISVs who already have trading solutions implemented and running in several financial markets, with references from their clients currently using their Software Product;

1.1.2   ISVs who are able to provide customer assistance on Bursa Malaysia working days from 7:00am to 9:00pm, Malaysia time; and

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1.1.3 ISVs who are not insolvent and do not have any judgment against them that remains unsatisfied or outstanding. In the event there is any litigation pending against the vendor, the vendor shall disclose to Bursa Malaysia the nature of the legal suit.

2. ISV Software Product Requirements

2.1. The Software Product must fulfil ALL the following requirements:

2.1.1 Properly receive and display all critical information about the market, particularly if a particular product or the entire market is reserved or suspended during regular market hours.

2.1.2 Handle connectivity to Bursa Malaysia and manage trading sessions in the protocols provided (MMTP or FIX 4.4). This includes proper logon, message sequencing as well as the smooth handling of disconnects and reconnects.

2.1.3 Capable of proper order entry and cancellation, as well as receipt of both order acknowledgement and fill information.

2.1.4 Be designed and developed to ensure that it does not adversely impact the Bursa Malaysia electronic markets at large. (for example, even though the system is designed to minimise such possibilities, there may exist scenarios that could flood the Bursa Malaysia network and/or processors, causing latency for other market participants)

2.1.5 Comprise features and functionalities that support compliance with Exchange Rules dealing with the entry and trading of orders as set out in the "Participating Organisation's Manual".

2.1.6 Be designed to accommodate new products and new initiatives developed by Bursa Malaysia (e.g., implied spread functionality, market-making).

2.1.7 Be designed to quickly and easily adapt to any configuration changes, such as changes in trading hours, matching algorithms or size of market depth, without the need to make software changes.

2.1.8 Integrate pre-trade credit check features.

2.1.9 Pass the tests specified in the test plan.

3. Approval of DMA Approved ISVs

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~~Approval of DMA Approved ISVs shall be at the sole discretion of Bursa Malaysia. In granting such approvals, Bursa Malaysia will consider, among other factors, the fulfilment of the ISV Eligibility Requirements and the ISV Software Product Requirements. The decision of Bursa Malaysia is final and no appeal will be entertained.~~

~~All communication and queries in relation to applications to become an Approved DMA ISV, or in relation to the DMA project shall be directed to the following:~~

~~Attention to: DMA Operations Department, Bursa Malaysia~~Technology Group Bursa Malaysia

~~Subject: Approved ISV~~

~~Email Address: DMA@bursamalaysia.com~~ITEnquiry@bursamalaysia.com

SECTION E: APPENDICES

- Appendix A: Bursa DMA Gateway – Testing & Creation of ID
- Appendix B: Creation of DMA Subscription ID
- Appendix C: Application to Become an Approved Vendor
- Appendix D: DMA Directory

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BURSA DMA GATEWAY: TESTING AND CREATION OF ID

1.   Description of Client Onboarding Process for Bursa DMA Gateway
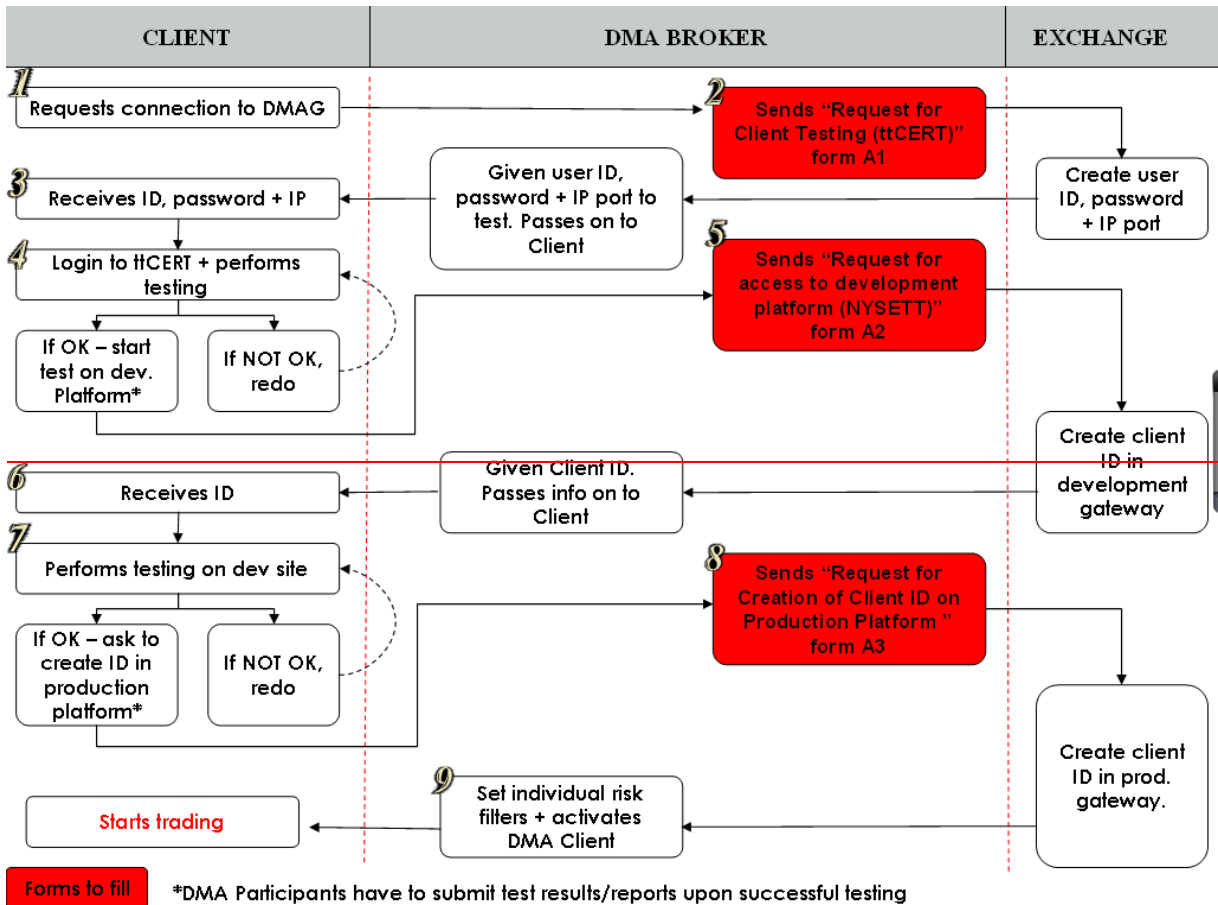
2.   Bursa DMA Gateway Forms to be Submitted to DMA Operations Department

- Form A1: Request for Client Testing - ttCERT
- Form A2: Request for Access to Development Platform
- Form A3: Request for Creation of Client ID on Production Platform

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> ## FORM A1 (BURSA DMA GATEWAY)
>
> ### REQUEST FOR CLIENT TESTING – ttCERT

Instructions: Please fill up the form in full and return via fax/e-mail to:

Bursa Malaysia Berhad
10th Floor Exchange Square
Bukit Kewangan
50200 Kuala Lumpur
Attention: DMA Market Operations Department

Fax: +603 2070 2397   E-mail: dma@bursamalaysia.com

Name of Participating Organisation or ISV:

……

Participating Organisation or ISV DMA Contact Person (Name + Contact Details):

……

Name of DMA Client (i.e. DMA Client intending to test with ttCERT):

……

DMA Client Contact Person (Name + Contact Details):

……

Name of Person(s) Conducting Tests on ttCERT (Name + Contact Details (e-mail address required))

……

Authorised Signature +
Company Stamp of Participating Organisation/ISV

……………………………………………………………………

DIRECT MARKET ACCESS HANDBOOK

FORM A2 (BURSA DMA GATEWAY)

REQUEST FOR ACCESS TO DEVELOPMENT PLATFORM

Instructions: Please fill up the form in full and return via fax/e-mail to:

Bursa Malaysia Berhad
10th Floor Exchange Square
Bukit Kewangan
50200 Kuala Lumpur
Attention: DMA Market Operations Department

Fax: +603 2070 2397   E-mail: dma@bursamalaysia.com

Name of Participating Organisation:

....

Participating Organisation DMA Contact Person (Name + Contact Details):

....

Name of DMA Client (i.e. DMA Client who has already tested with ttCERT):

....

DMA Client Contact Person (Name + Contact Details):

....

This serves to confirm that the DMA Client has tested against the ttCERT site successfully. We are submitting the following for Bursa Securities' further action:

Item	Remarks/Additional comments
ttCERT Test scripts	
Any other documents	

We would like to request for access to the development server (Bursa DMA Securities Gateway) to conduct further testing.

Authorised Signature +
Company Stamp of Participating Organisation

....

DIRECT MARKET ACCESS HANDBOOK

> # FORM A3 (BURSA DMA GATEWAY)
>
> ## REQUEST FOR CREATION OF CLIENT ID ON PRODUCTION PLATFORM

Instructions: Please fill up the form in full and return via fax/e-mail to:

Bursa Malaysia Berhad
10th Floor Exchange Square
Bukit Kewangan
50200 Kuala Lumpur
Attention: DMA Market Operations Department

Fax: +603 2070 2397   E-mail: dma@bursamalaysia.com

Name of Participating Organisation:

....

Participating Organisation DMA Contact Person (Name + Contact Details):

....

Name of DMA Client (i.e. DMA Client who has already tested with ttCERT):

....

DMA Client Contact Person (Name + Contact Details):

....

This serves to confirm that the DMA Client has tested against the ttCERT AND development sites successfully. We are submitting the following for Bursa Securities' further action:

Item	Remarks/Additional comments
Development site test scripts	
Any other documents	

We would like to request for the creation of a Client ID for our DMA Client on the production platform.

Authorised Signature +
Company Stamp of Participating Organisation

....

APPENDIX B

REQUEST FOR CREATION OF DMA SUBSCRIPTION ID

To:

Bursa Malaysia Berhad
10th Floor Exchange Square
Bukit Kewangan
50200 Kuala Lumpur
Attention: DMA Market Operations Department

Fax: +603 2070 2397   E-mail: dma@bursamalaysia.com

A. To be filled by Participating Organisation

Platform (please tick ✓):

☐ Bursa DMA Equities Gateway   ☐ GL Trade DMA Equities Gateway

Subscriber Type (sender, receiver or both): ....

Name of Participating Organisation: ....

Participating Organisation DMA Contact Person (Name + Contact Details):

....

Signature: ....   Date: ....

B. To be filled by Bursa Malaysia Berhad

HUB ID created for the above-mentioned PO: ....

Creation date (dd/mm/yyyy) and time (hh:mm): ....

Processed by: ....   Signature: ....

Designation: ....   Date/time: ....

Checklist: ☐ Notify PO of successful creation
                 ☐ Complete requirement list (attached)
                 ☐ CAP subscriber within limits

Remarks: ....
....

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APPENDIX ~~A~~C

~~APPLICATION TO BECOME AN APPROVED VENDOR~~

~~To:~~

~~Bursa Malaysia Berhad~~
~~10th Floor Exchange Square~~
~~Bukit Kewangan~~
~~50200 Kuala Lumpur~~
~~Malaysia~~
~~Attention: DMA Market Operations Department~~

~~We hereby apply to become an Approved Vendor to market our Software Product for the DMA facility offered by Bursa Malaysia. We have read and understood the Terms and Conditions for DMA Approved Vendors ("Terms and Conditions") attached herein and are agreeable to be bound by the said Terms and Conditions.~~

~~The contact person that is authorised by us to receive notices is _____ and may be reached at the e-mail address _____. We agree to inform you of any change of the contact person and/or e-mail address.~~

~~Please find enclose herewith the following:~~

☐   ~~A profile of our company detailing the business and financial standing of the company~~

☐   ~~A description of the Software Product.~~

☐   ~~A detailed test plan to be carried out for testing connectivity and functionalities of the Software Product.~~

~~Name of company:~~	
~~Authorised signatory:~~	
~~Name:~~	
~~Designation:~~	
~~Date:~~	

DIRECT MARKET ACCESS HANDBOOK

TERMS AND CONDITIONS FOR DMA APPROVED VENDORS

1   Introduction

1.1   Bursa Malaysia Berhad ("Bursa Malaysia") will be offering a new facility which allows direct electronic access by market participants to Bursa Malaysia's new trading platform, Bursa Trade. This new facility shall be known as Direct Market Access ("DMA").

1.2   To access Bursa Trade, market participants must use software developed and marketed by vendors which have been approved by Bursa Malaysia as "Approved Vendors" for DMA (hereinafter the software to be used by market participants for DMA shall be referred to as "Software Product").

1.3   These terms and conditions shall apply to all vendors who wish to become Approved Vendors and to the Software Product marketed by them for use by market participants for DMA.

2   Eligibility

2.1   The following may apply to become Approved Vendors:

        2.1.1   Vendors who already have trading solutions implemented and running in several financial markets with references from its clients currently using its Software Product.

        2.1.2   Vendors who are able to provide customer assistance on Bursa Malaysia working days from 7:00am to 9:00pm, Kuala Lumpur time.

        2.1.3   Vendors who are not insolvent and do not have any judgment against them that remains unsatisfied or outstanding. In the event there is any litigation pending against the vendor, the vendor shall disclose to Bursa Malaysia the nature of the legal suit.

2.2   Bursa Malaysia, at its sole discretion, reserves the right to refuse approval of any company or persons as an Approved Vendor. The decision of Bursa Malaysia is final and no appeals will be entertained.

3   Application to become an Approved Vendor

3.1   Any vendors applying to become an Approved Vendor must use the application form attached to these terms and conditions as Appendix CA.

3.2   All applications must be accompanied by the following:

        3.2.1   A profile of the company detailing financial standing and business of the company.

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3.2.2   A description of the Software Product.

3.2.3   A detailed test plan to be carried out for the testing of connectivity and functionalities of the Software Product.

3.2.4   Vendors who are also applying to participate in the "early bird" testing programme must, in addition to the above, provide a marketing plan for their Software Product.

4   Requirements of Software Product

The Software Product must:

◆   Properly receive and display all critical information about the market, particularly if a particular product or the entire market is reserved or suspended during regular market hours.

◆   Handle connectivity to Bursa Malaysia and manage trading sessions in the protocols provided (FIX 4.4). This includes proper logon, message sequencing as well as the smooth handling of disconnects and reconnects.

◆   Be capable of proper order entry and cancellation, as well as receipt of both order acknowledgement and fill information.

◆   Be designed and developed to ensure that it does not adversely impact the Bursa Malaysia electronic markets at large. (for example, even though the system is designed to minimize any such possibility, there do exist scenarios that could flood the Bursa Malaysia network and/or processors, causing latencies for other market participants)

◆   Be designed to support features and functionalities critical to Bursa Malaysia's market.

◆   Be designed to accommodate new products and new initiatives developed by Bursa Malaysia (e.g., implied spread functionality, market-making).

◆   Be designed to quickly and easily adapt to any configuration changes, such as changes in trading hours, matching algorithms or size of market depth, without the need to make software changes.

◆   Integrate pre-trade credit check features.

◆   Pass the tests specified in the test plan.

5   Contact Persons

DIRECT MARKET ACCESS HANDBOOK

5.1 ~~All communication in respect of the application to become an Approved Vendor or in respect of the DMA project shall be directed to the following:~~

~~**Attention to: DMA Operations Department, Bursa Malaysia**~~**Technology Group, Bursa Malaysia**
~~**Subject: Approved ISV**~~
~~**Email Address: DMA@bursamalaysia.com**~~**ITEnquiry@bursamalaysia.com**

6 ~~**Confidentiality**~~

~~In these Terms and Conditions, "**Confidential Information**" refers to any and all information, in any form, that is marked confidential or where not so marked, which is by its nature confidential or not generally available to the public or which the recipient knows or ought to know is confidential. All applicants applying to become Approved Vendors shall keep any Confidential Information strictly confidential and shall not disclose the Confidential Information to any other party(s) without Bursa Malaysia's prior consent in writing. For the purposes of clarity, all activities in relation to and in connection with the development and implementation of the DMA, including testing by "early bird" Approved Vendors, prior to the official launch of DMA shall be confidential.~~

7 ~~**Disclaimer**~~

7.1 ~~Bursa Malaysia (including its related companies, directors, agents and/or employees) makes no representation and/or warranty, express or implied, in respect of, or in connection with any of the following and shall not be held liable to any person in respect of, or in connection with any of the following:~~

     7.1.1 ~~The selection or rejection of any Approved Vendor;~~

     7.1.2 ~~The marketing of any Software Product;~~

     7.1.3 ~~The quality of any Software Product;~~

     7.1.4 ~~Any direct, special, punitive, indirect or consequential damages (including loss of profits) even when notified of the possibility of such damages); and~~

     7.1.5 ~~Any breach of any intellectual property rights of third parties in the development, marketing and use of the Software Product.~~

8 ~~**Indemnity**~~

DIRECT MARKET ACCESS HANDBOOK

8.1　　All persons applying to become Approved Vendors and Approved Vendors shall at all times indemnify and keep Bursa Malaysia (including its related companies, directors, agents and/or employees) indemnified against any and all claims, liabilities, losses and damages howsoever caused or incurred as a consequence of or arising in any way from their participation in the DMA project or in developing, testing or marketing their Software Product.

9　　Changes / Modifications to this document

9.1　　Bursa Malaysia shall have the right to impose additional requirements or to vary or modify any terms and conditions herein contained, as it deems fit.

10　　Governing law

10.1　　The terms and conditions set out in this document shall be governed by and construed in accordance with the laws of Malaysia.

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APPENDIX D

DMA DIRECTORY

1.   Bursa Malaysia DMA Market Operations

Correspondence Address:

DMA Market Operations
Exchange Operations
Bursa Malaysia Berhad
10th Floor, Exchange Square
Bukit Kewangan
50200 Kuala Lumpur, Malaysia

Telephone Number:

+603 2034 7226 / +603 2034 7283

Facsimile Number:

+603 2070 2397

Instant Messaging:

DMA Gateway Control Center: skype DMA.BursaMalaysia

General Enquiries:

General enquiries and request for information about DMA should be addressed to the following email DMA@BursaMalaysia.com

2.   Approved DMA ISV

The list of DMA ISVs can be found at www.bursamalaysia.com

3.   DMA Participants

The list of DMA Participants can be found at www.bursamalaysia.com