

MIT701 – GUIDE TO SPONSORED ACCESS

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**LONDON
STOCK
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Disclaimer

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1.0 Sponsored Access overview

Sponsored Access is defined as a direct technical connection that enables a non-member firm (the **Sponsored User**) to access electronic order books via London Stock Exchange (CCP-Cleared only) directly under an existing member firm's (the **Sponsoring Firm**) trading codes.

As the orders submitted via this connection do not pass through the usual order management systems of the Sponsoring Firm, appropriate risk controls have to be in place to prevent the entry of erroneous orders onto the Exchange's order books. Risk controls also prevent Sponsored Users from trading beyond the financial limits set by Sponsoring Firms, who are responsible for all trading activity under their trading codes.

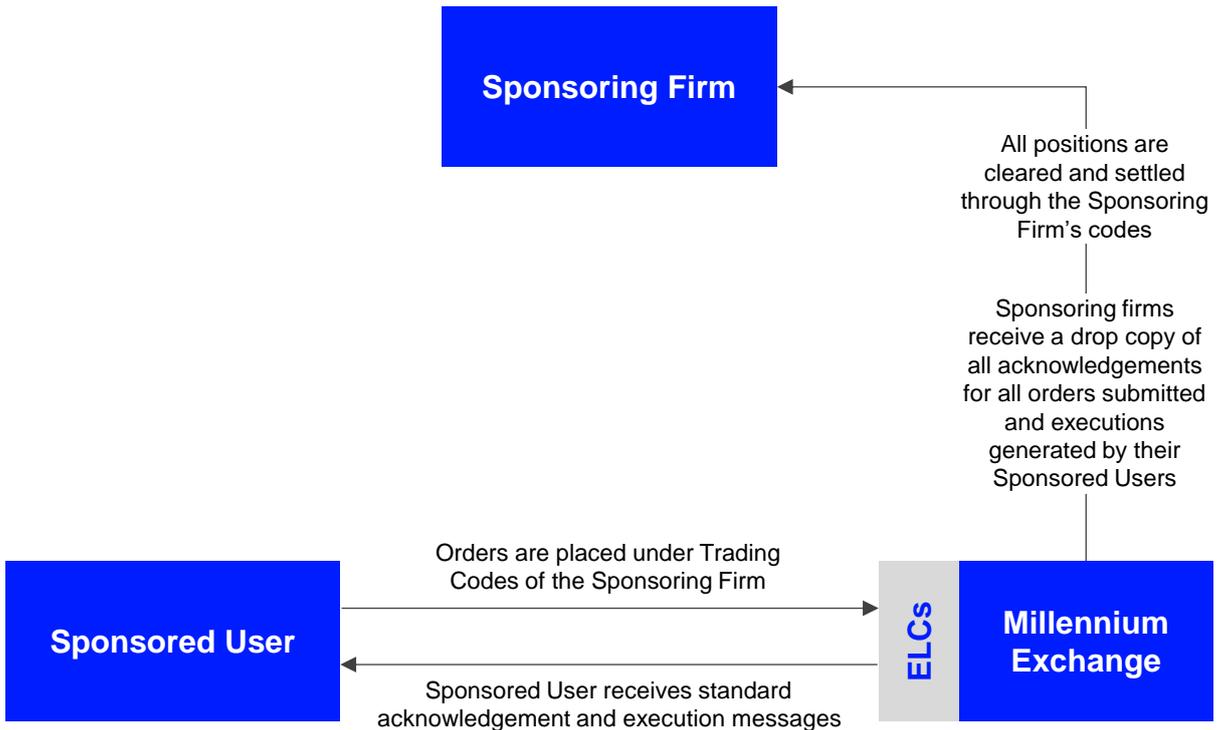
The Exchange now provides a series of Exchange Levels Controls (ELCs) to assist Sponsoring Firms with Sponsored Access order flow validation.

The Exchange mandates that all orders submitted via Sponsored Access pass through these ELCs before reaching the order book.

This document provides an overview of the functionality provided via Sponsored Access, including detail of the Exchange Level Controls in place for all users of the service.

The Sponsored Access service is for electronic (CCP-Cleared only) order book trading only and does not support Off-Book Trade Reporting at this time.

Sponsored Access order flow



1.1 Access to London Stock Exchange order books

With the introduction of Sponsored Access, there are now three distinct ways to access the London Stock Exchange electronic order books:

- Membership
A trading participant connects to and trades directly on the London Stock Exchange as a member firm; the member firm will always be responsible for trading activity under its trading codes.
- Direct Market Access (DMA)
With DMA, a member firm can allow a customer to submit orders to the trading system under the member firm's trading codes and via the member firm's order management systems.
- Sponsored Access
Unlike DMA, Sponsored Access allows a Sponsored User to submit orders under a member firm's trading codes to the trading system without passing through a member firm's order management systems. Instead, their orders pass through a series of validation checks provided by the Exchange (the ELCs) whilst orders are monitored by the member firm in real time.

This Service Description only addresses Sponsored Access. More details on the rules governing this service can be found via the following link:

<http://www.londonstockexchange.com/traders-and-brokers/rules-regulations/rules-regulations.htm>

1.2 Document history

This document has been through the follow iterations:

Issue	Date	Description
1.0	21 April 2011	First issue of this document published via the Exchange's website.
2.0	23 May 2011	Second issue of this document published via the London Stock Exchange's website.
2.1	December 2011	Third issue of this document published via the London Stock Exchange's website.
2.2	April 2012	Fourth issue of this document published via the London Stock Exchange's website. Change in the SFTP directory structure.
2.2	May 2012	Corrected SFTP IP address.
2.3	February 2013	Update section 3.1 Price Band Validation. Added instructions for RSA token download. Contact details update.
2.4	March 2013	Clarified behaviour regarding open orders when Restricted Instrument Lists are updated.
2.5	May 2013	Update to section 3.6 clarified behaviour when an erroneous Instrument ID is added the RIL and uploaded to the SFTP site Update to section 4.1, all Native Trading Gateways are enabled for sponsored access. There are no dedicated gateways. Update to section 4.3 providing the link for a London Stock Exchange connectivity guide for IP address information
2.6	May 2014	Updated section 3.4 Maximum Gross Consideration description.
2.7	July 2014	Updated section 4.1 Native protocol, expected behaviour during order cache unavailability.
2.8	June 2015	Section 3.4 – Updated to reflect change in MGC behaviour – Validations will now apply when MGC = 0 Section 3.4.1 – Updated for MGC breach alerts via Sponsor Portal and email Section 3.10 – Updated to provide further explanation Section 6.2 – Updated to reflect change in IE versions support from 7 & 8 to version 8 & 9
2.9	January 2016	Section 3.8 – Updated to clarify pegged orders with or without a limit price are not supported for Sponsored Access Users.
2.9.1	December 2016	Section 3.1 updated to reflect parameter is set as a Trading Parameter level, not Session Parameter.

In subsequent issues, where amendments have been made to the previous version, these changes will be identified using a series of side bars as illustrated opposite.

2.0 Responsibilities and agreements

2.1 London Stock Exchange

We are committed to the:

- Provision of a fair and orderly market, through the application and enforcement of rules, guidance, and pre- and post-trade controls.
- Monitoring and surveillance of the market.
In addition, for the purpose of Sponsored Access, the Exchange will:
- Provide and manage ELCs to assist Members wishing to offer Sponsored Access to their clients, who are not Members of the Exchange.

Have no direct agreements in place with Sponsored Users, but will review each application to provide a Sponsored Access connection. The Exchange, in its absolute discretion, reserves the right to refuse a Sponsored Access application.

2.2 Sponsoring Firm

Sponsoring Firms (Members) wishing to provide Sponsored Access to their clients (Sponsored Users) must submit an application form for every Sponsored User it wishes to connect directly to the Exchange. The Sponsoring Firm is required to carry out due diligence on all Sponsored Users to ensure they are fit and proper.

Further details on the rules governing the service can be found via the following link:

<http://www.londonstockexchange.com/traders-and-brokers/rules-regulations/rules-regulations.htm>

The Sponsoring Firm is ultimately responsible for all trading activity carried out by a Sponsored User under their membership.

The Exchange mandates the use of the ELCs for sponsored order flow to monitor and intermediate the activity of all Sponsored Users. Sponsoring Firms are responsible for determining the limits of the configurable ELCs and should adjust them accordingly when required.

2.3 Sponsored User

Sponsored Users have no direct trading agreement in place with the Exchange. However, they are required to be familiar with and adhere to the Rules of the London Stock Exchange and the Sponsoring Firm should satisfy itself that this is the case.

The Sponsoring User may have a relationship in place with the Exchange for the provision of technology services such as taking hosting space in the exchange-managed data centre. This relationship sits outside the protection of a direct trading relationship with the Exchange.

3.0 Exchange-Level Controls

Sponsored Access is provided based on a set of Exchange-Level Risk Controls (order validation checks), which are applied to all orders submitted by Sponsored Users, in order to restrict and prevent trading beyond certain limits.

All orders submitted via Sponsored Access will pass through the Exchange-Level Controls before reaching the electronic order book. This validation is specific to orders from Sponsored Users and is in addition to the standard checks in place on the Exchange, which are implemented and enforced for all Member Firms.

3.1 Price Band Validation

Price Band Validation prevents Sponsored Access orders with an overly aggressive limit price from entering the order book(s).

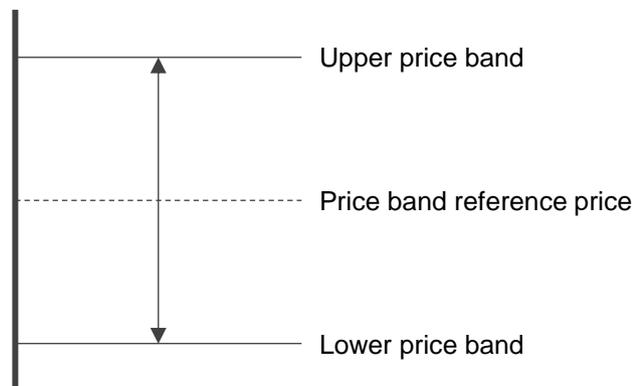
London Stock Exchange currently operates a one-way band limit depending on whether the incoming priced Sponsored Access order is a buy or a sell. The ruling threshold is set at Trading Parameter level and is defined as a percentage offset, computed against the reference price of the last traded price. Or the previous day's closing price, where the stock has not yet generated an order book trade that day.

The ruling threshold is set at Trading Parameter level and the value adopted is identical to that in use for the Dynamic Circuit Breaker, which is also set at Session Parameter level.

The following orders will be rejected on entry:

- Buy orders with a limit price equal to or greater than the upper price band limit (reference price plus price band offset)
- Sell orders with a limit price equal to or less than the lower price band limit (reference price minus price band offset)
- All unpriced orders.

Sponsored Access Price Band Validation is in addition to the standard London Stock Exchange dynamic and static circuit breakers, which Sponsored Access orders can still invoke on attempted execution.



3.2 Maximum order value

Maximum Order Value prevents orders with uncommonly large values from entering the order book(s).

The limit is set per Sponsored User, in a base currency. A currency conversion rate is applied to the traded currency of the order to give the value in the correct base currency. For more information, please refer to the '3.10 Currency Conversion' section.

All orders entered by the Sponsored User will be validated against the Maximum Order Value set for the Sponsored User. If the order value (price multiplied by order size) is greater than the Maximum Order Value, the order will be rejected.

The same logic will also be applied for order amendments. If the new order value (new price multiplied by new order size) in the order amend request is greater than the Maximum Order Value set for the user, the request will be rejected.

3.3 Maximum order quantity

Maximum Order Quantity prevents orders with an uncommonly large order quantity from entering the order book(s).

The limit is set at the individual instrument level and is applicable to all Sponsored Users (specified as a number of shares).

The current limit is set for a maximum of 5 million shares per instrument and per order.

3.4 Maximum Gross Consideration

The Maximum Gross Consideration limit prevents Sponsored Users from trading beyond a financial limit set by the Sponsoring Firm. If a Sponsored User attempts to submit an order which would result in the Current Gross Consideration exceeding the configured Maximum Gross Consideration, the order will be rejected.

Current Gross Consideration (exposure) is defined as the sum of all trades and value of all open orders, i.e.:

$$\text{Current Gross Consideration} = \text{Consideration of all trades during day} + \text{Value of all open orders}$$

The value is configured per Sponsored User for a trading day, in a base currency for the Sponsored User. FX conversion will be carried out based on the trading currency of the instrument. For more information, please refer to the '3.10 Currency Conversion' section.

The value is calculated as a cumulative value, i.e., a buy or sell order will be added to the overall Gross consideration and no netting of buy and sell positions will take place.

For example, a buy order in Vodafone of 500 shares at 100p followed by a sell order of 500 shares at 100p, will increase the overall Current Gross Consideration by 100,000p (compared with a net exposure position in Vodafone of 0).

All Sponsored Firms must set a Maximum Gross Consideration limit for each of their Sponsored Users (and can be set at an individual Sponsored User level). If this is not defined (i.e., set to 0), the Sponsored User will not be able to trade as no limit is applied. This value can be either increased or decreased intra-day via the [Sponsor Portal](#).

3.4.1 Maximum Gross Consideration Alerting via Sponsor Portal and email

Sponsoring Firms are able to receive advance warnings to alert them about their Sponsored Users order and trading activity in relation to their Max Gross Consideration threshold via the [Sponsor Portal](#) and via email (to an email group) when their Sponsored Users breach set thresholds.

Alerts are sent when a limit is breached for a Sponsored User and when a Sponsored User's Order is rejected due to an attempt to breach their Max Gross Consideration threshold, e.g., when 50%, 75%, 90% and 100% of the Sponsored Users Max Gross Consideration is breached.

For Example:

A Sponsored User has a Max Gross Consideration of 100,000 euros. An alert has been set up to warn the Sponsoring Firm (via the [Sponsor Portal](#) and email) when the Sponsored User's Order and Trade Consideration breaches 75% of their Max Gross Consideration threshold, i.e., when the Sponsored User's Current Gross Consideration exceeds 75,000 euros.

Where multiple thresholds are breached by a single order, only the alert for the highest threshold will be sent. An alert will only be sent once during any given day, unless the Sponsored User's Max Gross Consideration is updated.

To opt into receiving these additional alerts, Sponsoring Firms should contact the Technical Account Management Team at London Stock Exchange:

- londontam@lseg.com
- +44 (0)20 7797 3939

Once set up, Sponsoring Firms will be able to maintain their alerts thresholds for their Sponsored Users via the [Sponsor Portal](#).

3.5 Maximum message rate

Sponsoring Firms will be required to apportion a maximum message rate threshold in order to prevent Sponsored Users from entering an overly large number of messages. The limit will be set as a maximum number of messages per second per Sponsored User and be deducted from the total limit allowed for the Sponsoring Firm's allocation.

3.6 Restricted Instrument List

The Restricted Instrument List allows the Sponsoring Firm to restrict orders entered by a Sponsored User to a limited set of instruments, in the form of a negative permission list (set for an individual Sponsored User), i.e., the Restricted Instrument List is the list of instruments the Sponsored User cannot trade. If a Sponsored User attempts to submit an order in a restricted instrument, it will be rejected.

Lists are created (following notification from the Sponsored Firm) by the Exchange's Market Operations team (MOPS). The restricted instruments on each list are then maintained either:

- By MOPS;
 - Sponsoring Firms must submit a request to the Exchange's MOPS for changes to the Restricted Instrument Lists of Sponsored Users. Please refer to section 6.3 for further information.
 - Where an instrument becomes restricted intraday by MOPS, the Exchange will cancel any open orders of the Sponsored User in the restricted instrument. Until the Exchange cancels all open orders, a Sponsored User will continue to be able to amend any open orders on restricted instruments.
- Or by the Sponsoring Firm by uploading a .csv file via SFTP (via London Stock Exchange Extranet/Hosting);
 - The SFTP server should be available 24 hours a day, 365 days a year for file submission, but will only process files between 06:00 and 18:00 (GMT) on trading days. Files can be submitted outside of this time window.

Please note that when a new list is uploaded into the SFTP via this automated process, existing orders in the affected instruments will not be automatically deleted and firms should arrange for existing orders to be deleted. Until such open orders are deleted, a Sponsored User will continue to be able to amend any open orders on restricted instruments.

Sponsoring Firms that would like to update their restricted lists themselves (intra- or inter-day) using a .csv file can apply for an LSE-managed SFTP account.

Once the SFTP account has been set up, and the Restricted List shell has been created and assigned to the Sponsored User (or Users) by the Exchange's MOPS, Sponsoring Firms can upload CSV files to add or remove Instruments from a particular Restricted List.

The SFTP will have the following directories:

Directories	Description
Outgoing (default customer root folder)	This is where users can drop off updated Restricted List .csv files
Audit	This is where users can see what happened to every file (with a correct name and valid size) that they have asked the Exchange to process
Current	This is where users can see the most recent list which has been successfully processed
Incoming/inbox	Reserved for future use
Archive	Reserved for future use

The .csv file uploaded, must adopt the following characteristics:

- The Restricted List name will be provided by the Exchange's MOPS team and must be used in the file name submitted and within the file itself
- The file must have the following naming convention:
 - [RestrictedListName]_[YYYYMMDDHHMMSS].csv
 - e.g. [XXXX][YYYY]SP_20111130142535.csv

- X represents the Sponsoring Firm (Member Firm)
 - Y represents the Sponsored User or Group of Sponsored Users
 - SP = Sponsored Access Production/ ST = Sponsored Access Test
 - The timestamp used must be unique and should be current.
 - The file must not exceed a size of 200kb.
 - The file should contain a list of all the instruments that the Sponsoring Firm would like to restrict on a given Restricted List. If an erroneous instrument ID is included in a file that is uploaded, the entire file will be rejected. For example:
 - To add an instrument, you would add it to the list of instruments previously submitted.
 - To remove an instrument, you would delete it from the list of instruments previously submitted.
 - All Restricted Lists will persist overnight, meaning a file should only be submitted if there is a change required to a given Restricted List. It is expected that each file will result in at least one addition or one removal of an instrument from the specified Restricted List.
 - A file should only include updates to a single Restricted List. It is not possible to update more than one Restricted List with a single file.
 - Each Restricted List can contain up to 100 instruments.
 - The csv file should be comma delimited. The first row of the file should contain the following format:
 - <Restricted List Name>,<Instrument A>,<Instrument B>,...
 - The Instrument ID should be used to identify the instrument(s) to be restricted.
 - Up to 10 attempts (with files that are not out of date) can be made to update each Restricted List per day. Upon successful processing of a file, we will deliver:
 - A file with the same name with a .ok file extension (replacing .csv) to the 'Audit' directory and
 - If a file for the same Restrict List exists in the 'Current' directory, it will be updated with the new Restricted List.
- The content of the file in both directories will contain the original contents provided on line 1. Upon unsuccessful processing of a file, we will either:
- Do nothing (i.e., not provide an error file) where:
 - The file has been named with an incorrect Restricted List name prefix
 - A file exceeds the permitted size
 - There is a second error where a firm has already exceeded their 10 attempts, i.e., on the 12th attempt.
 - Deliver a file with the same name with a .err file extension (replacing .csv) to the 'Audit' directory. Where a filename is not unique, a timestamp will be added to the .err extension to make it unique, e.g., FirmName_RL1_20111130142535.err_20111130142540.
 - The file will contain the original contents provided on line 1 and an error code and description on line 2. The error code provided will be the first error detected.

The following table summarises all of the errors that can be provided.

Error Code	Description	Reason for error	Example entry on .err file
1	File cannot be processed	File is not formatted correctly or file is corrupt	1
2	Instrument Group not found	Restricted list does not exist or is incorrect	0002, Inst_Grp_x
3	Instrument not found	Instrument provided is invalid	0003, Inst_Grp_1, Inst_x
4	System unavailable	There was an error processing the file	4
5	File contains expression-based instrument(s)	There is an issue in the way the Restricted List has been set up, as a query has been used.	0005, Inst_Grp_1, Inst_x
		MOPS will need to be contacted to resolve this issue	
6	Outdated file	File has an out-of-date timestamp	6
7	No update from previous file	File has not changed	7

8	Update rejected by system	There was an error in processing the file	8
9	Max Instrument Group updates exceeded	The maximum number of Restricted List updates has been exceeded for the day. No further updates will be accepted or .err files provided	0009, InstGrp_20111103035100
10	Max Instruments per Group exceeded	The maximum number of Instruments within the file have been exceeded	10
11	Instrument Group does not match file name	The Instrument Group Name in the file name does not match the Instrument Group Name within the file	11
12	Duplicate file	The file is a duplicate	12

3.7 Cancel on disconnect

A new cancel on disconnect and cancel on logout facility is provided on Millennium. Within the new Sponsored Access model, the Exchange will mandate the use of this functionality for Sponsoring Firms and Users.

All Sponsored Users' orders will be deleted from the order book automatically under the following three circumstances:

1. Sponsoring Firm activates the Kill Switch for a given Sponsored User from the Portal.
2. Sponsoring Firm disconnects from the Drop Copy gateway for a longer than agreed, pre- configured time.
3. Sponsored User disconnects from the order book for a longer than agreed, pre- configured time.

All Sponsored Access Firms and Users will need to prove, via our test environment, that they are able to receive and interpret these messages.

3.8 Rejecting unpriced and pegged orders

All orders entered without a limit price (e.g., Market Orders) and all pegged orders (with or without a limit price) entered by Sponsored Users will be rejected.

This validation check is system-wide for all Sponsored Users and is applied as a Price Band Validation check when Market Orders are submitted to the order book.

3.9 Validation parameters summary

As described above, ELC checks/limits are set either at an instrument group level (to be applicable to all Sponsored Users), at a Sponsored User-specific level or as checks imposed on Sponsored Users at system level by the Exchange.

We have also included more information on the validations that are able to be controlled via the Sponsor Portal.

This is summarised below:

	User	Instrument/Instrument Group	System	Amended via Sponsor Portal
Price Band Validation		X		
Maximum Order Value	X		X	
Maximum Order Quantity		X	X	
Restricted Instrument List	X			
Maximum Gross Consideration	X			X
Maximum message rate	X		X	
Reject unpriced order			X	

3.10 Currency conversion

All nominal validation limits (Maximum Order Value and Maximum Gross Consideration) are specified in a base currency for the Sponsored User. All orders submitted will be converted from the traded currency to the base currency before these limits are applied. The exchange rates for this currency conversion are obtained from a mainstream, third-party data provider and maintained by the Exchange via a daily file upload. There will be five base currencies as per the example below:

Trading currency	Base currency	Value
SEK	EUR	9.3404
GBP	USD	0.8311
NOK	GBX	0.079809
USD	YEN	1.2767
HKD	GBP	11.567

4.0 Protocol

4.1 Sponsored Access Native Trading Gateways

The Service is supported on all Native Trading Gateways. Therefore, all clients (i.e., Sponsored Users) wishing to trade via Sponsored Access must do so using the Native interface.

Sponsored Users wishing to connect to the Native Trading Gateway will need to do so by using certified software. Details on the certification of software can be found in the:

- Guide to Application Certification MIT502 (see link below)
- The Guide to testing services MIT501 (see link below)

<http://www.londonstockexchange.com/products-and-services/millennium-exchange/technicalinformation/technicalinformation.htm>

In the unlikely event one or more order cache instances for the Drop Copy gateways become unavailable, Sponsored Users will be logged out from the Native Real-Time channel (even if order cache instances of other partitions are up and running). The string 'System unavailable (to sponsored users)' will be sent as the reason in the log out message.

Any new logins will be rejected via a logon response message with the reject code '9905' (System unavailable (to Sponsored Users)) until the order cache instances of that partition are up.

This is simulated in our CDS environment hourly, as described in section 3.4.4 of our MIT501 Guide To Testing Services.

4.2 FIX Drop Copy Gateway

A FIX Drop Copy of all trading activity by Sponsored Users will be provided to Sponsoring Firms in real time. All Sponsoring Firms must have an active FIX Drop Copy session at all times in order to provide Sponsored Access. Should this connection fail, all Sponsored Access orders will be deleted and all of the users who are sponsored by the Sponsoring Firm will be restricted from entering any further orders.

Sponsoring Firms will need to pass a testing checklist to prove they are able to receive and interpret the Drop Copy feed covering the activities undertaken by their Sponsored Users.

Sponsoring Firms will need to connect to the Drop Copy Gateway using certified software. Details on certification can be found via the link above.

Details of the Drop Copy Gateway MIT205 can also be found via the above link.

4.3 Connectivity

All Native gateways are enabled for Sponsored Access for both CDS and Production. Sponsored Users can connect directly to the Exchange via any of the Exchange published connectivity methods, i.e., VAN, NSP, Extranex or Hosting.

The IP addresses for connectivity to the Native Trading Real-Time, Native Recovery and Drop Copy gateways can be found in the LSE connectivity guide: <http://www.londonstockexchange.com/products-and-services/millennium-exchange/millennium-exchange-migration/mit1001connectivityguide.pdf>

4.4 Order capacity

Eligible orders can be submitted with a new dealing capacity, 'CFD Give Up'. If the submitter has the appropriate user privileges for capacity conversion, the dealing capacity of such orders will be converted to 'Principal' upon successful submission of an order.

Details of how to submit orders with capacity 'CFD Give Up' can be found in the MIT203 Native Trading Gateway Specification document, available for download at the following address:

<http://www.londonstockexchange.com/products-and-services/millennium-exchange/technicalinformation/technicalinformation.htm>

5.0 New Error codes

New Error codes have been implemented to support Sponsored Access. These are listed below.

Validation	Error Code	Error Message
Max order value	1005	Invalid order size (greater than Maximum Order Value)
Max order quantity	111001	Invalid qty (greater than maximum order quantity)
Max Gross Consideration	1006	Invalid order size (will breach Maximum Gross Consideration)
Restricted Instrument	1800	User not registered to submit interest for instrument
Reject unpriced orders	1802	Invalid order type for user (market order)
	1400	Invalid order type (unknown)
Sponsored Access Gateway	9904	Invalid gateway (not configured for Sponsored Access)
No Drop Copy connection	1912	Monitoring user form Sponsoring Firm not connected
Invalid order type	111406	Invalid order type for Sponsored User (pegged order)
System unavailable	9905	System unavailable (to Sponsored Users)
Invalid limit price	1202	Invalid limit price (price band breached)

6.0 Providing sponsored access

6.1 Sponsored User setup

Sponsoring Firms must complete a Sponsored Access application form for each prospective Sponsored User and return this to the Membership Team. Their contact details are available in section 7.

Upon approval of the Sponsored Access application, the Exchange will allocate all Sponsored Users their own Trader Group/UserID(s), which will be a suffix with the letters “SPO”. All SPO UserIDs will have ‘Cancel on disconnect’ configured by default with a timer of ‘Immediate’. Own Trade Book Download (OTBD) will need to be supported by both the Sponsoring Firm and Sponsored User unless the Sponsoring Firm will support it on behalf of the Sponsored User.

A Customer Request Form (CRF) for Test and Production access will be sent to the Sponsoring Firm. This needs to be completed and returned to the Membership Team via email to membership@lseg.com.

For more information on Firm, Node and User setup please refer to ‘MIT 201 - Guide to New Trading System’ which can be found at the following URL: <http://www.londonstockexchange.com/products-and-services/millennium-exchange/technicalinformation/technicalinformation.htm>

6.2 Sponsor Portal

The Sponsor Portal is a web-based GUI tool accessed via a secure login, which allows the Sponsoring Firm to monitor and amend certain trading activities of a Sponsored User.

The Sponsoring Firm can view Current Gross Consideration and Maximum Gross Consideration for all their Sponsored Users in the Sponsor Portal and, if necessary, the Sponsoring Firm can increase or decrease the Maximum Gross Consideration.

If required, a Sponsoring Firm can suspend any of their Sponsored Users from trading. Upon the suspension via the ‘proactive Kill Switch’, all open orders for a Sponsored User will be deleted and all new orders will be rejected. Subsequently, a Sponsoring Firm can lift the suspension of a Sponsored User and allow them to trade again.

There is no ‘Master’ Kill Switch on the Portal for all Sponsored Users of a Sponsoring Firm. Therefore, individual firms will need to be managed.

The Sponsor Portal does not support the maintenance of the restricted list – this will be managed by the Market Operations team as per details below.

Access to the Sponsor Portal will require a two-stage authentication process. Firstly, the submission of a passcode generated by RSA software provided by the Exchange and running on a Windows operating system (a ‘soft token’). And secondly, submission of a password chosen and managed by the Sponsoring Firm. The process will be as follows:

RSA authentication

- When submitting the CRF, the Sponsor should specify up to five UserIDs that they wish to use to access the Portal. UserIDs will take the form of email addresses.
- The Sponsor should download the RSA software to a windows PC
 - Download the file “Download RSA SecurID Software Token for Microsoft Windows” from <http://www.emc.com/security/rsa-securid/rsa-securid-software-authenticators/ms-windows.htm>
 - Complete the relevant fields in the form and click ‘I agree’
 - Download and decompress the zip file
 - Run the installer called ‘**RSASecurIDToken411.msi**’
 - Once installed, run the program called ‘RSA SecurID Token’ from the start menu.
- The Exchange will email a token file to each of the UserIDs specified by the sponsor, which the user should decrypt (using a key which the Exchange will send by a separate email) and then download to their PC.
- The Sponsor should enable their RSA software by informing it of the location of the token file. From this point onwards the RSA software will generate passcodes.
- To access the Portal, the Sponsor needs to go to the relevant URL as below, and then enter their UserID and passcode (these URLs will be activated in advance of the launch of the service.)
 - CDS - <https://cds-sponsored-access.londonstockexchange.com/>
 - Production - <https://sponsored-access.londonstockexchange.com/>

- The Sponsor will then be requested to enter their UserID again, this time with their password.
- The Sponsor Portal is compatible with Windows Internet Explorer Versions 8 and 9.

Password authentication

- Once the Sponsor has submitted their password they should be able to use the Portal.
- The Sponsor can change their password using the options available on the Portal
- The Sponsor Portal will be compatible with Windows Internet Explorer Version 7 and 8.

Password policy

- Minimum eight characters long
- Must use three out of the following four character types: uppercase, lowercase, digit, punctuation
- Must not be a 'simple' password. The verification is more complex as it is based on multiple criteria including:
 - Not based on a standard dictionary word (e.g., 'password')
 - Not derived from the username
 - Not based on simple patterns (e.g., '12345' or 'qwerty')
- Passwords do not expire
- There is no user account lockout

6.3 Market operations

The Exchange Market Operations Team will act as an Administrative User who can also log in to the Sponsor Portal, and view the details of all Sponsored Users for all Sponsoring Firms. In the event that a Sponsoring Firm cannot access the Sponsor Portal to monitor Sponsored Users or adjust limits, they can contact Market Operations and request that they intervene on their behalf.

It is also possible to maintain the Restricted Instrument List for validation by contacting the Exchange's MOPS.

Intraday change requests can be submitted via email or phone. MOPS will endeavour to make any intraday changes within a reasonable time frame and will confirm when the adjustments have been made.

Market Operations can be contacted on +44 (0)207 797 3666 by selecting option one. Or by e-mail at mktops_supervision@lseg.com

6.4 Testing requirements

Sponsored Users and Sponsoring Firms will need to ensure they are using certified software on the Native Gateway for Order entry (Sponsored User) and the Drop Copy Gateway (Sponsoring Firm). Both User and Firm will need to demonstrate they have tested the functions associated with a Daily Life Cycle (DLC) of the service on the CDS environment prior to go-live on production.

A DLC test is conducted with the Sponsoring Firm, the Sponsored User and a member of the CTS team via conference call. A DLC test can be booked by contacting the Market Access team at marketaccess@lseg.com.

When booking the test, Members should highlight that it is a DLC test and confirm contact details from the Sponsoring Firm, the Sponsoring Users firm and the CompID/UserIDs to be used.

The test will focus on a combination of the following scenarios:

- Sponsoring Firm (SF) not logged on to the Drop Copy Gateway
- Sponsored User (SU) log on
- SU enters an order and confirms receipt of reject code '1912'
- SF logs on to Drop Copy gateway
- SU enters passive order and confirms success
- SU and/or SF performs OOB and confirms success
- SF activates Kill Switch
- SU confirms unsolicited message confirming Order deletion
- SF confirms Drop Copy message confirming Order deletion
- SU enters passive order again and confirms success
- SF drops connection from Drop Copy service
- SU confirms unsolicited message confirming Order deletion
- SU attempts to enter order and confirms receipt of reject error code '1912'
- SF Logs on to Drop Copy again and confirms Drop Copy messages via recovery

- SU enters passive order and then disconnects
- SF confirms both Drop Copy messages of entry and order delete
- SU Logs back on and recovers missed messages
- SU enters order for instrument in the restricted list and confirms reject error
- SU enters orders to cause Execution
- SU and/or SF performs OTBD and confirms success
- SF uploads Restricted List via SFTP and SU confirms order reject on newly restricted instrument
- SU enters order with CFD Give up capacity and confirms principal capacity on execution

6.5 Production access

Once the above scenario is completed via certified software and signed off by the Exchange, the Sponsored User will be allowed to connect to production by means of a Live Connectivity Test (LCON) where the same scenario as above will be tested in the production environment on one or more of the test stocks between 07:00 and 07:45 (GMT).

LCONs can be performed in two phases:

- Phase 1 - Performed the evening prior to go-live, from 17:00 - 18:15 (GMT), where UserIDs and CompIDs are logged on to confirm connectivity only.
- Phase 2 – Performed on the morning of go-live between 07:00 and 07:45 (GMT), where the above scenarios are tested on the Test Instruments on Production that allow order entry between these times.

Note – If any of the above scenarios are failed during the LCON, the SU UserIDs will be suspended before the trading day starts and a further LCON rebooked.

LCONs can be booked via an email to marketaccess@lseg.com. A three-day notice period is required and the LCON will also be conducted with the Sponsoring Firm, the Sponsored User and a member of the CTS team via conference call. Therefore, appropriate contact details from both Sponsoring Firm and Sponsoring User are required.

Examples of the Test Instruments on Production are below.

Instrument ID	Symbol
5081	TE18
5082	TE19
5083	TE20

6.6 Post trade

A Sponsored User's post-trade activities are managed between the Sponsoring Firm and the Sponsored Users. All positions are cleared and settled through the Sponsoring Firm's codes. Where necessary, a new static data form will need to be completed with relevant details.

7.0 Contact

For further information, or to discuss a connection to the Exchange via Sponsored Access, please speak to your Account Manager or contact the Membership Team via the details below:

E-mail: membership@lseg.com

Telephone: +44 (0)20 7797 1900

Facsimile: +44 (0)20 7959 9800

For more information on the technical set up, enablement and testing, please contact your Technical Account Manager or the Technical Management team on +44 (0)207 797 3939 or londontam@lseg.com.

Contact Details

London Stock Exchange
10 Paternoster Square
London EC4M 7LS

www.londonstockexchange.com

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