MIT701 – GUIDE TO SPONSORED ACCESS

Issue 2.17
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**LONDON
STOCK
EXCHANGE**

Contents

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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 London Stock Exchange's electronic order books (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 on to London Stock Exchange 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.

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

London Stock 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
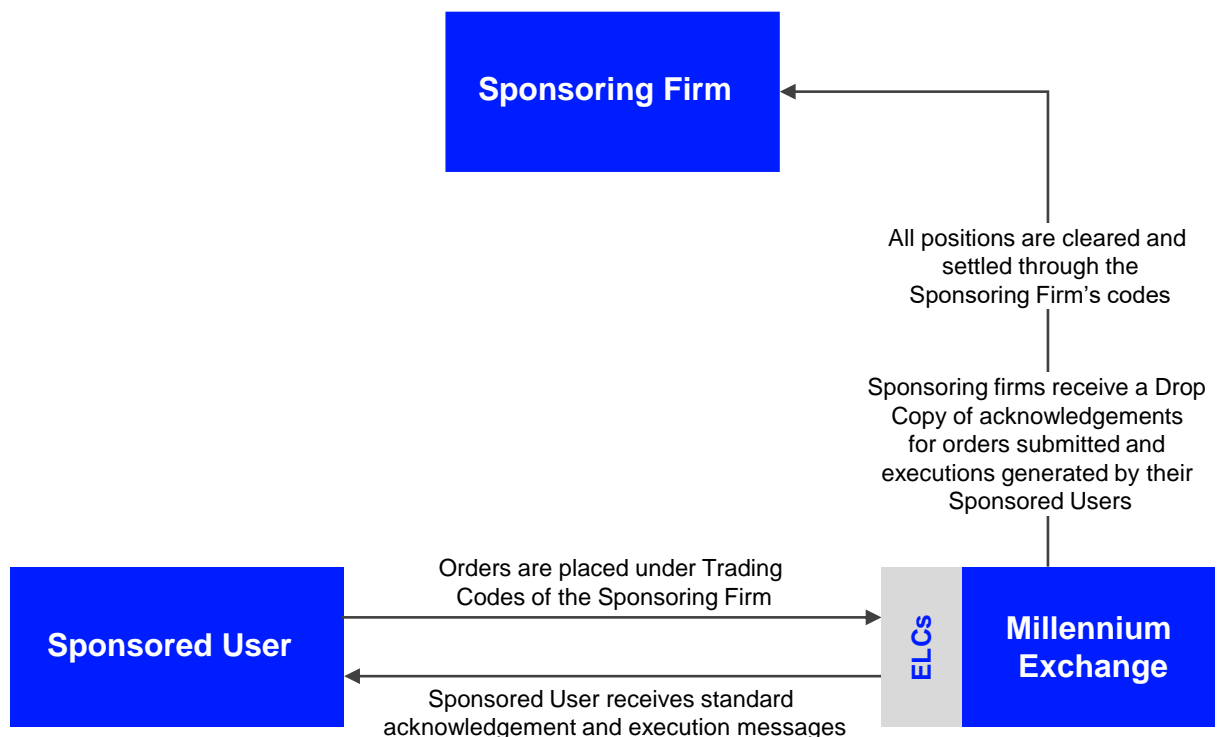
1.1   Access to London Stock Exchange Order Books

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

– Membership
  A trading participant connects to and trades directly on 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 to the trading system under a Member Firm's trading codes without passing through a Member Firm's order management systems. Instead, their orders pass through a series of validation checks provided by London Stock Exchange (the ELCs) whilst orders are monitored by the Member Firm in real-time.

This service description only addresses Sponsored Access.

Please note that in order to offer Sponsored Access or Direct Market Access, a Member Firm must be authorised as an investment firm or credit institution within the European Economic Area (EEA).

A full description of the trading services offered by London Stock Exchange can be found in MIT201 Guide to the Trading System, available in the Technical Specification section of London Stock Exchange's website:
http://www.londonstockexchange.com/products-and-services/millennium-exchange/technicalinformation/technicalinformation.htm

More details on the rules governing this service can be found at 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 London Stock Exchange's website.
2.0	23 May 2011	Second issue of this document published via London Stock Exchange's website.
2.1	December 2011	Third issue of this document published via London Stock Exchange's website.
2.2	April 2012	Fourth issue of this document published via 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 the LSEG 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.

Issue	Date	Description
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 3.11 - 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 3.9 - Updated to clarify pegged orders with or without a limit price are not supported for Sponsored Access Users. Updated Disclaimer and various references to London Stock Exchange.
2.10	August 2016	Section 3.6 updated (with sections 3.6.1 and 3.6.2 created), and Section 6.2 updated to reflect support of uploading a restricted instrument list via the Sponsor Portal. Section 3.6.1 updated to reflect the change in error handling for SFTP .csv file uploads. Sections 3.5, 3.7 and 4.2 updated. Section 6.2 Updated to reflect change in IE versions support from 8 & 9 to version 11.
2.11	December 2016	Section 3.1 updated to reflect parameter is set as a Trading Parameter level, not Session Parameter.
2.12	March 2017	Various Sections updated to reflect change in name of Sponsor Portal to "Risk Controls Portal". Section 6.2 updated to reflect supported version of Internet Explorer (IE) is now version 11.
2.13	3 January 2018	Document updated for MIT Release 9.2 (MiFID II). Section 1.1 updated to reflect that in order for firms to offer Sponsored Access or DMA, the Member Firm must be authorised as an investment firm or credit institution within the European Economic Area (EEA). Section 3.1 updated – Price Band Validation renamed Reference Price Collars with content moving to the MIT201 Guide to Trading Services, as the Price Collars apply to all users. Section 3.4.1 updated to reference the Member Portal. Section 4.4 deleted, and Section 6.4 updated, as Capacity CFD Give Up is not supported. Section 6.4 updated to reference MIT501 – Guide to Testing Services.
2.14	5 February 2018	Section 1.1 added to reference MIT201 – Guide to the Trading System Section 3.8 – Kill Switch via Drop Copy Gateway (API) added. Section 3.9 updated to reflect the Kill Switch is also now available via the Drop Copy Gateway (API). Sections 3.8, 3.9, 3.10 references updated, due to new Section 3.8 being added. Section 4.2 updated, to include the Kill Switch. Section 6.1 updated, to include reference to the Member Portal. Section 6.5 deleted, as LCON tests are no longer performed.
2.15	20 February 2018	Section 3.6.2 updated to add clarity.
2.16	20 January 2021	Section 3.6 Updated method of requesting Restricted Instrument List (RILs) and the responsibility of Sponsoring Firms to manage RILs. Section 3.6.1 updated to reflect the migration of Restricted Instruments Lists (RILs) to MFT. Directory changes. FTP file transfer option also removed. Section 3.6.2 updated; Sponsored Firms must request RILs via the Member Portal. Section 4.2 updated to add clarity that Sponsoring Firms must establish a Drop Copy session to ensure any GTD Orders are carried over to the next business day.
2.17	14 June 2023	Section 6.2 OKTA Authentication replaces RSA Tokens as authentication method for Sponsored Access Risk Portal.

Within this document, where amendments have been made to the previous version, these changes will be identified by highlighting the text in red.

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, pre and post trade controls.
– Monitoring and surveillance of the market.

In addition, for the purpose of Sponsored Access, London Stock Exchange will:

– Provide and manage Exchange Level Controls to assist Members wishing to offer Sponsored Access to their clients, who are not Members of London Stock Exchange.
– Have no direct agreements in place with Sponsored Users but will review each application to provide a Sponsored Access connection. London Stock 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 LSEG. 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 at 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.

LSEG 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 LSEG, however they are required to be familiar with and adhere to the Rules of 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 London Stock Exchange for the provision of technology services such as taking hosting space in LSEG's managed data centre. This relationship sits outside the protection of a direct trading relationship with London Stock 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, 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 LSEG, which are implemented and enforced for all Member Firms.

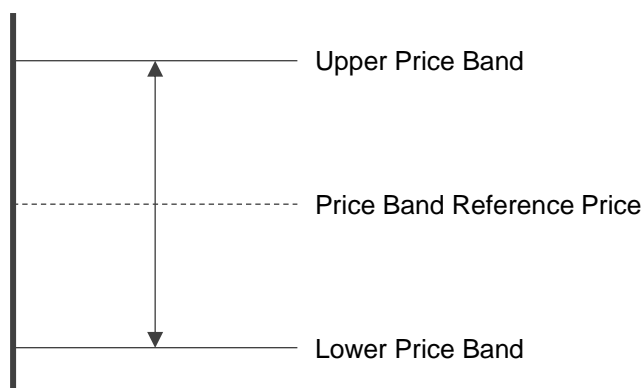## 3.1   Reference price collars

Reference Price Collars prevent Orders with an overly aggressive limit price from entering the order book and trading.

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 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 + price band offset)
− Sell orders with a limit price equal to or less than the lower price band limit (reference price – price band offset)
− All un-priced orders.

Sponsored Access Price Band Validation is in addition to the standard London Stock Exchange dynamic and static circuit breakers, which Sponsored Access orders cannot invoke.

During Regular Trading, to prevent a circuit breaker being invoked, the Sponsored Access Reference Price Collar is set 1 basis point less than the ruling **Dynamic Price Monitoring %** for that instrument. To give more flexibility during auction call phases, the ruling sponsored access reference price collar is doubled from that in place for Regular Trading. The **Dynamic Price Monitoring %** can be found for each trading sector on the 3rd tab of **Millennium Exchange and TRADEcho Business Parameters**.

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 section 3.11 Currency Conversion.

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 x 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 x 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.,

Consideration of all trades during day

Current Gross Consideration   =   +

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 section 3.11 Currency Conversion.

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 until a limit is applied. This value can be either increased or decreased intraday via the Risk Controls Portal.

3.4.1   Maximum Gross Consideration alerting via Risk Controls Portal and email

Sponsoring Firms can receive advance warnings to alert them about their Sponsored Users order and trading activity in relation to their Max Gross Consideration threshold via the Risk Controls Portal and/or 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 Risk Controls 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.

Sponsoring Firms can opt-in to receive these additional alerts via the Member Portal. For more information on the Member Portal and how to register to gain access (available from late 2017), please follow this link: https://www.lseg.com/markets-products-and-services/our-markets/markets-membership/member-portal

Alternatively, please contact the Membership Team:

- membership@lseg.com
- +44 (0)20 7797 1900

Once set up, Sponsoring Firms will be able to maintain alerts thresholds for their Sponsored Users via the Risk Controls Portal.

3.5 Maximum message rate

Sponsoring Firms will be required to allocate a maximum message rate threshold 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 will be allocated from the total limit permitted for the Sponsoring Firm.

3.6 Restricted instrument list

A 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.

Restricted Instrument Lists can be requested via the Member Portal by the Sponsoring Firm.

Restricted Instruments on each list are maintained by the Sponsored firm by uploading a .csv file:

- Via SFTP
- Or via the Risk Controls Portal.

In situations where access to SFTP or the Risk Controls Portal is not possible, London Stock Exchange's Market Operations (MOPS) team can assist:

- Sponsoring Firms must submit a request to LSEG'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, LSEG will cancel any open orders of the Sponsored User in the restricted instrument. Until LSEG cancels all open orders, a Sponsored User will continue to be able to amend any open orders on restricted instruments.

3.6.1 Updating a Restricted Instrument List via SFTP

Sponsoring Firms that would like to update their Restricted Lists using a .csv file would need to apply for an LSEG managed SFTP account. This can be requested via the Technical Account Management Team (londontam@lseg.com).

Once the SFTP account has been set up and the Restricted Instrument List shell(s) have been created, Sponsoring Firms can upload (intraday) .csv files to add or remove Instruments from a particular Restricted List. Any intraday uploads to the Restricted Instrument List will be made active within 5 minutes.

Please note that when a new list is uploaded onto the SFTP site, existing unexecuted orders on added instruments will not be automatically deleted. The Sponsored Firm will continue to be able to amend and/or cancel any remaining open orders on the newly restricted instruments.

The SFTP server will be available for file processing from 06:00-17:30 GMT during trading days. An authentication error will occur if an attempt to log on to the SFTP server is made outside these hours. Any files submitted outside of these hours will receive no acknowledgement response and any files inside the portal gateway folder will be deleted when London Stock Exchange restarts.

The SFTP repository will have the following directories:

Directories	Description
Outgoing	This is where users can see what happened to every file (with a correct name and valid size) that they asked London Stock Exchange to process
Incoming	The is where users can upload Restricted list .csv files.

The uploaded.csv file must adopt the following characteristics:

– The file must have the following naming convention:

  – The Restricted List name will be provided by London Stock Exchange and must be used in the file name submitted within the file itself.
  – The file must have the following naming convention and be unique for a given business day. [RestrictedListName]_[YYYYMMDDHHMMSS].csv

– The file must not exceed a size of 200KB
– The file should contain a list of all the instruments that the Sponsored Firm cannot trade, with a maximum limit of 100 instruments
– The Instrument ID must be used to identify the restricted instruments
– The .csv file should be comma delimited. The first row of the file must use the following format:

<[RistrictedListName]>, <Instrument ID A>, <Instrument ID B>

If a file is uploaded and does not meet initial required validation on the file name, the file will be transferred to '/Outgoing' prefixed with "INVALIDNAME_"

The initial validation is that the filename must be prefixed matching part of the username.

Please note that:

– In case an erroneous Instrument ID is indicated, the file will be entirely rejected.
– Files with a date different from the current date in their filename will not be processed.
– 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.
– It is not possible to update more than one Restricted List with a single file upload.
– Up to 10 attempts can be made to update each Restricted List per day.
– Uploading a file with no underscores present in the filename(s) will result in failure.

Upon **successful** processing of an incoming file, the Sponsor will receive:

– A response file with the same name of the uploaded file and an ".ok" file extension into the "Outgoing" directory.
– The successfully processed file stored in the "Incoming" directory.

Upon **partially** successful processing of a file, the Sponsor will receive:

– A response file with the same name of the uploaded file and an ".ok" file extension to the "Outgoing" directory. This file will contain the list of instruments which were successfully processed and a warning message "One or more entry uploads have failed".
– A response file with the same name of the uploaded file and an ".err" file extension to the "Outgoing" directory. The file will contain a list of instruments which were unsuccessful, along with the reasons for failure.
– The successfully processed file stored in the "Incoming" directory.

Upon **unsuccessful** processing of a file, the Sponsor will either:

– Be provided no results (i.e., not provide an error file) in case –

  – The file has been named with an incorrect Restricted List name prefix.
  – The file exceeds the maximum permitted size.
  – On the second error where a firm has already exceeded their 10 attempts i.e., on the 12th attempt.

– Be provided a file with the same name of the uploaded file and an ".err" file extension to the "Outgoing" directory. Where a filename is not unique, a timestamp will be added to the ".err" extension to make it unique

  – e.g., "LSE_ABCTRADING_RL16_20180124060004.err_201812111503"
  – 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.

Note: Response files sent to the "Outgoing" directory and Restricted List.csv files uploaded in the "Incoming" directory will be stored for 7 days.

The following table summarizes the errors that can be provided.

Error code	Scenario description	Reason for error
0001	The File cannot be processed (due to incorrect file format or corrupt file)	File cannot be processed
0002	Incorrect or non-existing Restricted Instrument List	Restricted Instrument List shell/group not found
0003	Invalid instrument/instrument does not exist	Instrument(s) not found
0004	A Restricted Instrument List update failed due to Exchange Manager having terminated, or the file update failed because Exchange Manager was in the process of failing over	System unavailable
0005	File contains instruments which are already added through an Expression	File contains expression-based instrument(s)
0006	The file name is the same as the previously uploaded file or The file name's timestamp is older than that of the previously processed file with the same Instrument Group	Outdated file
0007	The file's content is same as the previously uploaded file for the same Instrument Group	No update from previous file
0008	An Instrument Group update is rejected by LSEG due to EOD process not being completed	Update rejected by System
0009	Upload (N+1)th file when Max_RIL_Updates = N	The maximum number of Restricted List updates has been exceeded for the day. No further updates will be accepted or .err files provided
0010	Max Instruments per Group exceeded	The maximum number of Instruments within the file have been exceeded
0011	Instrument Group specified in the file does not match the Instrument Group specified in the file name	The Instrument Group Name in the File Name, does not match the Instrument Group Name within the file
0012	Duplicate file is uploaded before the gateway processes the initial file	The file is a duplicate
0013	System error is encountered while processing	File cannot be processed due to system error

3.6.2   Updating a Restricted Instrument List via the Risk Controls Portal

Sponsoring Firms that would like to update their Restricted Lists themselves (intraday or interday) using a .csv file can do so via the Risk Controls Portal.

For characteristics and format requirements of the .csv file, please refer to the relevant part of Section 3.6.1 Updating a Restricted Instrument List via SFTP

Once the Restricted List shell has been created (requested via Member Portal) a Sponsoring Firm can browse and upload a single .csv file every 20 seconds to add or remove instruments from a particular Restricted List.

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

The Risk Controls Portal will carry out some basic validations before attempting to upload a file. When validations fail, a pop-up message will be displayed in the Risk Controls Portal with one of the following reject messages:

Scenario	Reject Message
File size is too large for the framework to process (in the megabyte range)	The file upload failed.
File name length is over 49 characters	File name is too long.
Invalid file type (Only .csv files are allowed.)	An invalid file type.
File content longer than 4,000 characters	File content is too long.
File contains data in multiple lines. File can contain data in only one line.	File contains data in multiple lines
Another file exists with the same file name.	Duplicate file name.

As per Section 3.6.1 Updating a Restricted Instrument List via SFTP, Sponsoring Firms can expect to receive the same ".ok" and ".err" files, as appropriate for the **successful, partially successful** and **unsuccessful** processing of Restricted Instrument Lists uploaded via the Risk Controls Portal, "Remarks" column (see table below).

Once a file has been uploaded, the system will indicate the request is being processed in the Risk Controls Portal and have the status of 'Processing'. Once processed, the "Status" of the file uploaded will be updated.

The following table provides a complete set of Risk Controls Portal "Status", descriptions and "Remarks" provided:

Status	Description	Remarks
Processing	The file has successfully passed the basic validations and has been uploaded ready for processing.	n/a
Partially successful	The file has been uploaded and one or more entries have been processed successfully.	For "Partially Successful" processed files, the remark column will state: **"One/or more entry uploads have failed."** By clicking on the download links, users can download the ".ok" and ".err" files.
Successful	The file upload has been successfully processed.	By clicking on the download links, users can download the ".ok" file.
System unavailable	The file upload request has been in a "Processing" state for longer than 30 seconds.	n/a
Failed	The file upload has been rejected due to one of the reasons in the Error Code table (below).	For "Failed" processed files which generate a single error code, the remark column will state: **"Error Information: <Description>"** For "Failed" processed files which generate multiple error codes, the remark column will state: **"File processing failed due to multiple errors."**
		By clicking on the download links, users can download the ".err." file.

The following table summarises all the errors that can be provided:

Error Code	Description	Reason for error	Example entry on .err file and 'Remarks' column
0001	File cannot be processed	File is not formatted correctly, or file is corrupt	0001, File cannot be processed
0002	Instrument Group not found	Restricted list does not exist or is incorrect	0002, Instrument group not found, Inst_Grp_x
0003	Instrument not found	Instrument provided is invalid	0003, Instrument not found, Inst_Grp_1, Inst_x
0004	System unavailable	There was an error processing the file or the file has taken longer than 30 seconds to process	0004, System unavailable
0005	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 MOPS will need to be contacted to resolve this issue	0005, File contains expression-based instrument(s), Inst_Grp_1, Inst_x
0006	Out-dated file	File has an out-of-date timestamp	0006, Out-dated file
0007	No update from previous file	File has not changed	0007, No update from previous file
0008	Update rejected by System	There was an error in processing the file	0008, Update rejected by System
0009	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, Max instrument group updates exceeded, InstGrp_20111103035100
0010	Max instruments per group exceeded	The maximum number of instruments within the file have been exceeded	0010, Max instruments per group exceeded
0011	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	0011, Instrument group does not match file name
0012	Duplicate file	The file is a duplicate	0012, Duplicate file
0013	File cannot be processed due to system error	The file cannot be processed due to a system error	0013, File cannot be processed due to system error

3.7   Cancel on disconnect

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

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

   a. The Sponsoring Firm disconnects from the Drop Copy gateway for a longer-than-agreed pre-configured time, resulting in the suspension of trading services for all associated Sponsored Users (e.g., submitting orders).
   b. The 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   Kill Switch (suspension and reactivation)

A Kill Switch is available to Sponsoring Firms to "suspend" a selected Sponsored User. It can be activated manually via the Risk Controls Portal or automatically by sending a message via the Drop Copy Gateway.

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

   a. The Sponsoring Firm activates the Kill Switch for a given Sponsored User from the Risk Controls Portal.
   b. The Sponsoring Firm activates the Kill Switch for a given Sponsored User via the Drop Copy Gateway.

Sponsoring Firms can also:

– "Activate" Sponsored Users to allow them to resubmit orders via the Risk Controls Portal or via the Drop Copy Gateway.
– See the "status" of their Sponsored Users via the Risk Controls Portal or request the "status" of a Sponsored User via the Drop Copy Gateway.

All Sponsored Access Firms will need to prove via our test environment that they are able to send, receive and interpret Kill Switch messages (suspend, activate, and status) via the Drop Copy Gateway.

3.9   Rejecting un-priced 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.

3.10   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 LSEG.

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

This is summarised below:

	User	Instrument/Instrument Group	System	Amended via Risk Controls Portal
Price Band Validation		X		
Max Order Value	X		X	
Max Order Quantity		X	X	
Restricted Instrument List	X			
Max Gross Consideration	X			X
Max Message Rate	X		X	
Reject Un-priced Order			X	

3.11 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 LSEG 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 (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 use certified software. Details on the certification of software can be found in the below documents:

−   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 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 constantly have an active FIX Drop Copy session to provide Sponsored Access. Should this connection fail, all Sponsored Access orders will be deleted, and all Sponsored Access users will be suspended from accessing trading services (e.g., submitting orders).

For 'Good Till Date' (GTD) Orders to be carried over from one business day to the next, Sponsoring Firms must establish their Drop Copy session prior to Pre-Trading commencing, else all GTD Orders will be deleted.

Sponsoring Firms can monitor and maintain the status of their Sponsoring Users. Sponsoring Firms can "Suspend", "Activate" and request the "Status" of their Sponsoring Users. Should a Sponsoring Firm "Suspend" a Sponsored User, all the Sponsored User's orders will be deleted, and the Sponsored User will be suspended from accessing trading services (e.g., submitting orders). Should a Sponsoring Firm "Activate" a Sponsored User, they will be able to access trading services and resubmit orders.

Each Sponsoring Firm's Drop Copy Gateway is limited to a maximum number of "Suspend" requests and a maximum number of "Activate" requests, for all their Sponsored Users assigned to the Drop Copy Gateway. The counts both included any rejected requests. Details of these settings are available on request from the Technical Account Management team: londontam@lseg.com.

Sponsoring firms will need to pass a testing check list 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 as per the link above.

Details of the Drop Copy Gateway MIT205 can also be found on London Stock Exchange's website: http://www.londonstockexchange.com/products-and-services/millennium-exchange/technicalinformation/technicalinformation.htm

4.3   Connectivity

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

The IP addresses for connectivity to the Native Trading Realtime, Native Recovery and Drop Copy gateways can be found in LSEG's Connectivity Guide, available on the website: http://www.londonstockexchange.com/products-and-services/millennium-exchange/millennium- exchange-migration/mit1001connectivityguide.pdf

5.0 Error codes

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

Validation (Trading Gateway)	Error Code	Error Message
Max order value	1005	Invalid order size (> maximum order value)
Max order quantity	111001	Invalid qty (>max order qty)
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).

'Max activation requests'	0	Maximum allowed activate count breached
'Max suspension requests'	0	Maximum allowed suspension count breached

Validation (Drop Copy)	User Status	User Status Text
User recognized	3	User not recognized
Trading System available	4	Application is not available
'Risk managed by' permissioned	6	Not permissioned to manage the risk of the user
'Manage user status' permissioned	6	Not permissioned to manage user status
User Status change request is invalid	6	No change to user status

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 – contact details are available in Section 7.

In addition, the Sponsoring Firm should request a native Trader Group ID(s)/User ID(s) for the sponsored connection via the Member Portal. The sponsored connection ID(s) will be appended with the letters "SPO" as a suffix. All SPO User IDs 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.

For Test (CDS) access and configuration the Sponsoring Firm will need to contact their Technical Account Manager or the Technical Account Management team at londontam@lseg.com. The Sponsoring Firm and Sponsored User will need to complete a Daily Life Cycle Test (DLC) with a certified Drop Copy application for the Sponsoring Firm and certified Native application for the Sponsored User.

Once the DLC is successfully completed, the Sponsoring Firm can request the production Native ID, OTBD and Monitoring Drop Copy configurations on Member Portal.

For information on requesting technical configuration in the Member Portal please refer to the Technical Configuration User Guide:
https://www.lseg.com/sites/default/files/content/documents/Technical%20Configuration%20User%20Guide.pdf

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

For Sponsoring Firms requesting Risk Management Drop Copy functionality, this can be enabled on the Monitoring Drop Copy or on a new dedicated Risk Management Drop Copy. Currently enablement of the Risk Management functionality is requested outside of the Member Portal. The request should go to the Technical Account Manager or the Technical Account Management team at londontam@lseg.com.

6.2 Risk Controls Portal (Previously called Sponsor Portal)

The Risk Controls Portal is a web-based GUI tool accessed via a secure login (accessible via LSEG infrastructure), 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 Risk Controls Portal, and if necessary, the Sponsoring Firm can modify (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 "pro-active 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 Risk Controls Portal does not support the maintenance of the Restricted Instrument Lists – this will be managed by the Market Operations team as per the details below. The Risk Controls Portal does support the ability to upload .csv files to update Restricted Instrument Lists. For more information, please see section 3.6.2   Updating a Restricted Instrument List via the Risk Controls Portal

Access to the Risk Controls Portal will require a two-stage authentication process via OKTA

The first step is the submission of user created OKTA Password, and the second the submission of an OKTA Passcode.

6.2.1 OKTA Registration

- Sponsoring firm should provide the Technical Account Management team (londontam@lseg.com) the list of users required to have access to the Sponsored Access Risk Portal, providing the names and email addresses of each user.
- LSEG will send an OKTA activation email to each user's email address. An email from noreply@identity.lseg.com will be sent to customers to start the account activation process. Users will have 7 days to activate their accounts from receiving the activation email.
- Users will need to select 'Activate Your Account' from the OKTA activation email, following instructions to create a password ('Google Authenticator' step is not required). Note, customers may need to whitelist the following URL, 'https://identiy.lseg.com', for OKTA Activation to work.
- OKTA Registration is complete once the password has been set.

6.2.2 Sponsored Access Risk Portal Access

1. Once OKTA Registration is complete, the Sponsored Access Risk Portal User needs to go the relevant URL as below and populate the email address associated with the users Risk Portal Login and select 'Next'.

   - CDS - https://cds-sponsored-access.londonstockexchange.com/

   - Production - https://sponsored-access.londonstockexchange.com/

   The Risk Controls Portal is compatible with Windows Internet Explorer Version 11

2. Users will be prompted to choose a 'Security Method', the 'Password' option should be selected. Users to use the OKTA password set when registering for OKTA.
3. Users will need to click 'Send me an email' once the password has been verified. If successfully performed users will receive a one-time verification code to the registered email, from 'noreply@identity.lseg.com'.
4. Select 'Enter a Verification Code Instead' from the email sent by noreply@identity.lseg.com and submit the one-time verification code provided.
5. Once the account has been verified you will be redirected to the login page of the Sponsored Access Risk Portal URL. You will need to use your Sponsored Access Portal credentials provided by Technical Account Management. Note Sponsored Access Risk Portal credentials can differ from OKTA Authentication Password.

6.2.3 Sponsored Access Risk Portal Password Policy

- Minimum of 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

LSEG's Market Operations Team will act as an Administrative User who can also log in to the Risk Controls Portal and view the details of all Sponsored Users for all Sponsoring Firms. If a Sponsoring Firm cannot access the Risk Controls 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 LSEG 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 0207 797 3666 (option 1) 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 of the service on the CDS environment prior to go-live on production.

For further details, please refer to MIT501 – Guide to Testing Services.

6.5   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 London Stock 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

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

Telephone: +44 (0)20 7797 1000

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