London Stock Exchange

MiFID II Deployment Guide Proposal

Issue 1.0

3 August 2017

Contents

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1.0 Purpose

In view of the regulatory changes introduced by the revised Markets in Financial Instruments Directive (MiFID II) and Regulation (MiFIR), London Stock Exchange will adapt its Rules, trading systems and exchange services between November 2017 and January 2018, with the goal of ensuring: (i) an orderly migration to the new versions of its systems, and (ii) a proper management of the transition between the current and the new regulatory regime.

The objective of this document is to present:

- the roadmap of the deployment plan for technical and functional changes to London Stock Exchange's trading systems, and related approach to the testing phase of the new version of MIT Exchange;
- the regulatory plan to introduce related changes to London Stock Exchange's Rules (subject to FCA approval);
- an opportunity for member firms and other market participants to provide feedback on this proposed approach.

We would appreciate any feedback by market participants in relation to the proposed deployment approach described in this document by **30 August 2017** to the following contacts:

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We will publish additional information and, if necessary, amendments to this proposed approach in due course.

A summary table of the proposed approach is provided at the end of this document.

2.0 Document History

Issue	Date	Description
1.0	3 August 2017	Publication of initial version

3.0 References to MiFIR / MiFID II documentation published by London Stock Exchange

The following documents are complementary to this communication. Additional documents related to our MiFIR / MiFID II programme will be published in due course.

Regulatory documents

For draft versions of London Stock Exchange's Rulebook, related Instructions and Guide to Trading Parameters to comply with required MiFIR / MiFID II changes, please refer to:

http://www.londonstockexchange.com

Technical documents

For updated technical documents regarding MIT Exchange 9.2, please refer to:
http://www.londonstockexcahnge.com/techlib

For updated technical documentation regarding GTP services, please refer to:

http://www.londonstockexchange.com/products-and-services/millennium-exchange/documentation/documentation.htm

MiFID II Updates

For updates on the MiFID II programme, please refer to:

http://www.lseg.com/resources/mifid-ii

4.0 Key Dates

The key dates for the migration plan to the new versions of London Stock Exchange's trading systems are the following:

	Millennium Exchange
Current version	MIT Exchange 9.1
New version	MIT Exchange 9.2
CDS go-live	3 August 2017
Customer Dress Rehearsals	7, 28 October 2017
Go-live	20 November 2017

In order to ensure a proper management of the transition between the current and the new regulatory regime, MIT Exchange 9.2 will be deployed in production in advance of the legal entry into force of MiFIR / MiFID II on 3 January 2018.

Market participants are informed that:

- the deployment of MIT Exchange 9.2 will require a significant update of the structure of trading and market data protocols, in order to handle the additional information required by specific MiFIR / MiFID II provisions and related Technical Standards. The new structure of these protocols will be deployed in production **at the go-live date of MIT Exchange 9.2**, as detailed in the table above.

- Market participants will be required to conform to these new versions of trading and market data protocols in advance of any customer dress rehearsal (as required by London Stock Exchange's Conformance Test policy[1]), and to properly handle new information required by incoming/outgoing technical messages;

- at their technical go-live date, MIT Exchange 9.2 will introduce several functional enhancements that are required by MiFIR / MiFID II. Nevertheless, certain functionalities and configurations required to properly implement MiFIR / MiFID II provisions will have to remain non-mandatory or 'inactive' until 3 January 2018. In order to facilitate testing by market participants of functionalities and system configurations that will be activated only in time for **3 January 2018**, during the testing phase of MIT

[1] As available at the following link: http://www.londonstockexchange.com/techlib

Exchange 9.2 some specific instruments will be configured according to the expected behaviour that will be activated at the legal entry into force of MiFIR / MiFID II.

5.0 Deployment Approach

Each section in this document describes the technical changes and approach to Rulebook changes (including transitional provisions, where necessary) that will be applied by London Stock Exchange to ensure a proper management of the transition towards the full implementation of MiFIR / MiFID II, as follows:

- 5.1 Order record keeping and transaction reporting
- 5.2 Microsecond granularity and UTC timestamps
- 5.3 Trading Capacity
- 5.4 Pre-trade transparency
    - a. Iceberg orders
    - b. Fully hidden orders
    - c. Negotiated transactions
    - d. Request for Quotes
- 5.5 Post trade transparency
- 5.6 Pre-trade controls
- 5.7 Tick size regime
- 5.8 Liquidity provision activity
- 5.9 Stressed market conditions

5.1 Order record keeping and transaction reporting

In order to comply with MiFIR / MiFID II record keeping obligations, London Stock Exchange will be required to ask its participants to provide, for each order/quote message at order entry/modification/cancellation, additional information regarding:

- the identity of the direct client of the market participant that is submitting the order/quote[2];
- the identity of the person or algorithm within the investment firm that is responsible for the investment decision[2];
- the identity of the person or algorithm within the investment firm that is responsible for the execution of the order[2];

[2] In the format of 'short codes' and related qualifiers.

- whether an order has been inserted in the trading system by a DEA client;

- whether an order has been inserted in the trading system by an algorithm of the member.

To ensure an orderly technical migration, London Stock Exchange has decided to deploy all associated changes to native and FIX trading protocols (including Drop Copy and Post Trade Gateway) in use by MIT Exchange, at the **go-live date of MIT Exchange 9.2**.

Consequently:

London Stock Exchange Rules to provide the above information will enter into force from **3 January 2018**;

- market participants' applications will be required to properly handle the new structure and content of trading protocols by the go-live date;

- starting from the go-live date, market participants must populate the new mandatory fields in order/quote entry messages in order to have their orders/quotes accepted by the trading system. Otherwise, the related order/quote message will be rejected;

- mapping of short code to true identity of the person, entity or algorithm will not be required until **3 January 2018**, and so no post-trade validation of these codes will be carried out until this date.

London Stock Exchange will separately publish specific documentation in due course containing:

a) guidelines for market participants in order to correctly populate the new mandatory fields in order/quote entry messages, from **3 January 2018**;

b) guidelines for market participants in order to correctly provide mappings between: (i) short codes and related qualifiers inserted in order/quote messages, and (ii) their related 'long codes' as required by RTS 24[3] (e.g. Legal Entity Identifiers of member firms and clients of member firms, identifiers of natural persons acting as clients, investment decision makers or executors of an orders, identifiers of algorithms);

c) required timelines for this activity;

d) dates of availability of a Member Portal, supporting the new MiFID II functionalities.

[3] Commission Delegated Regulation (EU) 2017/580 of 24 June 2016 supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council with regard to regulatory technical standards for the maintenance of relevant data relating to orders in financial instruments.

In addition, in order to support members to comply with their order record keeping and transaction reporting obligations, London Stock Exchange is required to provide member firms some additional information concerning orders and transactions executed on its trading venues (e.g. the "Waiver indicator", as described in Field 61 of Annex I, Table 2 of RTS 224; post trade "flags", fully described in section 5).

Please note that some of the new information is connected to the new MiFIR / MiFID II pre- and post-trade transparency regime, and in particular with the classification of financial instrument as "liquid" or "not liquid" products. The "Waiver indicator" will be generated and disseminated starting from the go-live date of MIT Exchange 9.2, but should not be considered as significant by market participants until MiFIR / MiFID II legally enter into force on **3 January 2018**.

For full details regarding the new structure of trading protocols, the list of new mandatory fields in order and quote entry/modification/cancellation messages, and new information included in outgoing messages, please refer to the technical documentation provided on London Stock Exchange's website.

5.2 Microsecond granularity and UTC timestamps

In the context of adapting trading protocols to MiFIR / MiFID II requirements, format and precision of timestamps will also be adapted according to the requirements of RTS 25[5]. While this requirement is mandated by MiFIR / MiFID II on **3 January 2018**, London Stock Exchange will introduce the new format and level of precision of timestamps (where necessary) **at the go-live date of MIT Exchange 9.2[6].**

Market participants will be required to adapt their applications to the new timestamps at the go-live date.

For full details regarding the new format and level of precision of timestamps in trading protocols and market data feeds, please refer to the technical documentation provided on London Stock Exchange's website.

5.3 Trading Capacity

Order record keeping and transaction reporting requirements of MiFIR / MiFID II will require London Stock Exchange to record the Trading Capacity of orders inserted in its trading systems. The three capacities available are Dealing on Own Account ('DEAL'), Matched Principal ('MTCH') and Any Other Trading Capacity ('AOTC'). These attributes will be collected from participants on order or quote entry using existing fields and field values but with the

[4] Commission Delegated Regulation (EU) 2017/590 of 28 July 2016 supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council with regard to regulatory technical standards for the reporting of transactions to competent authorities.

[5] Commission Delegated Regulation (EU) 2017/574 of 7 June 2016 supplementing Directive 2014/65/EU of the European Parliament and of the Council with regard to regulatory technical standards for the level of accuracy of business clocks.

[6] This change is not impacting London Stock Exchange's Rulebook.

definitions changing from **3 January 2018** as follows: Principal to DEAL, Riskless Principal to MTCH, and Agency to AOTC.

On 3 January 2018:

- Existing member configurations for Dealing Capacities will be mapped to the new MiFID II Trading Capacity definitions from **3 January 2018** unless requested otherwise by members;

- London Stock Exchange's Rules will be updated to reflect these new definitions.

5.4 Pre-trade transparency

The new regulatory regime regarding pre-trade transparency requires London Stock Exchange to obtain new approvals from ESMA in order to offer functionalities to enter orders and execute trades without full pre-trade transparency. The new transparency regime will impact (a) iceberg orders, (b) fully hidden orders, (c) Cross order and BTF functionality and (d) RFQ functionality. Functioning of stop orders will remain unchanged.

Iceberg orders

The new regulatory regime is mandating London Stock Exchange to introduce a new control relating to the minimum size of an iceberg order, at order entry and following any user-initiated modification. The minimum allowed size for an iceberg order under MiFIR / MiFID II rules, based on the combined visible and hidden parts of the iceberg order, is €10,000. New orders and order amendments valued at less than this amount, based on the price and size of the order, will be rejected.

London Stock Exchange is planning to activate this new minimum order size control for iceberg orders **at the go-live date of MIT Exchange 9.2.**

The new minimum size for an iceberg order along with the minimum peak size will be published in the Millennium Exchange Business Parameters[7].

Fully hidden orders

The new regulatory regime extends the existing Large In Scale concept to all equities, equity-like instruments and non-equities, whilst existing MiFID equity instruments will be subject to re-calibration. On entry, orders requested to a transparent system to be fully non-displayed will be valued at the point of entry and following any user-initiated modification and rejected if considered below the relevant Large In Scale threshold for the instrument. New orders and

[7] Market participants must also be aware that, in the context of adaptations to the new MiFID II regime, existing controls in place on the MIT Exchange platform on the minimum 'peak size' of iceberg orders will be maintained as a number of shares.

order amendments valued at less than this amount, based on the size and price of the order, will be rejected on entry.

Cross order and BTF functionality

Cross Order and Block Trading Facility ('BTF') functionalities will support the formalisation of pre-agreed transactions authorised according to MiFID II waivers: Negotiated Trade and Illiquid Waivers for Cross Orders, and Large In Scale Waiver for BTF, from **3 January 2018**.

Therefore, Cross Order functionality will be disabled for liquid non-equities given the absence of a Negotiated Trade or Illiquid waiver for these instruments in MiFID II, with ESMA Large In Scale thresholds configured as a minimum entry value threshold for BTF. The proposed date for this change is **3 January 2018**.

ETFs and illiquid ETCs, ETNs and fixed income instruments, the price of cross orders will be validated to ensure they are within the volume weighted spread available in the order book for the specific order quantity. In case the volume weighted bid or offer price (or both) cannot be determined, then the cross order:

- for liquid ETFs, will be rejected;
- for illiquid instruments ETFs, ETCs, ETNs and fixed income instruments, its price must be within a pre-determined percentage deviation from the last trade price (or reference price from the previous day, in case no trade was executed during the day).

Permitted percentage deviations to validate prices of cross orders will be published in the Millennium Exchange Business Parameters.

London Stock Exchange reminds participants that, following MiFIR / MiFID II entering into force on **3 January 2018**, Cross Order functionality on individual liquid ETFs could be suspended for 6 months with the suspension of the Negotiated Trade waiver in case ESMA triggers a "double cap mechanism" for that instrument. Market participants will be informed on the availability of the Negotiated Trade waiver for each instrument, in daily instrument reference data files.

BTF functionality for shares, ETFs, ETCs, ETNs, fixed income instruments and securitised derivatives

With BTF functionality, existing controls on the minimum size of orders entered to BTF will be converted from quantity to monetary value. The new minimum values of BTF will be published in the new Millennium Exchange Business Parameters. London Stock Exchange is planning to switch from the existing quantity-based to the new value-based minimum thresholds for BTFs **at the go-live date of MIT Exchange 9.2**

Request for quote

London Stock Exchange intends to initially only offer RFQ functionality with no pre-trade transparency with only RFQs above the necessary pre-defined size threshold accepted.

5.5 Post trade transparency

The new regulatory regime regarding post-trade transparency will require London Stock Exchange to provide immediate post trade transparency by disseminating information regarding transaction executed on its trading venues in a new, standardised format, as defined by RTS 1[8] for equity and equity-like instrument, and RTS 2[9] for non-equity instruments.

In order to comply with this requirement, London Stock Exchange will add a new feed in the GTP service for all markets, replicating the structure and formats required by RTS 1 and 2.

These changes to existing messages, and availability of the new MiFIR / MiFID II compliant messages, will be deployed in production **at the go-live date of MIT Exchange 9.2**. For full details, please refer to technical documentation as provided on London Stock Exchange's website. Market participants' applications will be required to properly handle the new structure and content of trading protocols and market data feeds **at the MIT Exchange Release 9.2 go-live date.**

Please note that certain new fields included in the structure of the new messages (e.g. "NLIQ", "OILQ", "ALGO" flags etc.) are connected to the new MiFIR / MiFID II regulatory requirements and pre- and post-trade transparency regime, and in particular with the classification of financial instrument as "liquid" or "not liquid" products. Post trade transparency "flags", as described in Table 4 of RTS 1 Annex I, and Table 3 of RTS 2 Annex II, will be generated and disseminated starting from the go-live date of MIT Exchange 9.2, according to instrument classification available in the trading systems, but should not be considered as significant by market participants until MiFIR / MiFID II legally enter into force on **3 January 2018.** Similarly, trades resulting from at least one order or quote marked as algorithmic according to the Algo flag on order/executable quote entry will be published with the ALGO flag **from the go-live date of MIT Exchange 9.2.**

[8] Commission Delegated Regulation (EU) 2017/587 of 14 July 2016 supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council on markets in financial instruments with regard to regulatory technical standards on transparency requirements for trading venues and investment firms in respect of shares, depositary receipts, exchange-traded funds, certificates and other similar financial instruments and on transaction execution obligations in respect of certain shares on a trading venue or by a systematic internaliser.

[9] Commission Delegated Regulation (EU) 2017/583 of 14 July 2016 supplementing Regulation (EU) No 600/2014 of the European Parliament and of the Council on markets in financial instruments with regard to regulatory technical standards on transparency requirements for trading venues and investment firms in respect of bonds, structured finance products, emission allowances and derivatives.

5.6 Pre-trade controls

In order to comply with the new regulatory regime regarding pre-trade controls, London Stock Exchange will introduce a new exchange-level, pre-trade control on the maximum size of an incoming order/quote, defined by monetary value for cash markets.

Applicable thresholds of the new maximum allowed value/notional value for an individual order/quote will be published in the Millennium Exchange Business Parameters.

In case an order/quote is received by the system with a value/notional value above the pre-defined threshold, the order will be rejected. Similarly, amendments to a size above the pre-defined threshold will be rejected. These maximum order value validations will be activated **on 2 January 2018**

Furthermore, London Stock Exchange is required to introduce price collars, which automatically block orders that do not meet pre-set price parameters on an order-by-order basis. The applicable threshold represented as a percentage from the relevant reference price will be published in the Millennium Exchange Business Parameters, and will only apply to the upper limit of the price collar for buy orders, and the lower limit of the price collar for sell orders. These price collar validations will be activated **at the go-live date of MIT Exchange 9.2**.

5.7 Tick size regime

The new regulatory regime regarding tick sizes is requiring London Stock Exchange to adjust the tick sizes table applied to shares traded on its equity markets, and to ETFs with equity underlying. Other instruments may also be affected by this change.

Shares and depositary receipts

London Stock Exchange will introduce new tick size tables, according to the requirements defined by RTS 11[10], and will define the tick size table applicable to each share and depositary receipt, taking into account the minimum tick size allowed by MiFIR / MiFID II (linked to the average number of trades executed on the most relevant market in term of liquidity for each share).

During the CDS phase of MIT Exchange 9.2 in order to facilitate testing by market participants of system configurations, a subset of instruments will be configured in the CDS environment with the new MiFIR / MiFID II tick size tables. The list of these instruments will be published in due course.

To reduce the impact of changes on 3 January 2018, London Stock Exchange will implement these changes **on 2 January 2018**.

[10] Commission Delegated Regulation (EU) 2017/588 of 14 July 2016 supplementing Directive 2014/65/EU of the European Parliament and of the Council with regard to regulatory technical standards on the tick size regime for shares, depositary receipts and exchange-traded funds.

ETFs, ETCs and ETNs

For ETFs with equity underlying, the tick table defined by RTS 11 corresponding to the highest average daily number of transaction will be applied to all instruments, including RFQ functionality. For other ETFs and ETCs/ETNs, tick tables will be selected and published in due course.

London Stock Exchange will implement these changes **on 2 January 2018.**

5.8 Liquidity provision activity

In order to allow London Stock Exchange to meet its obligation for MiFID II order record keeping[11], orders or quotes must be identifiable if submitted to as part of a market making strategy pursuant to Articles 17 and 48 of Directive 2014/65/EU, or submitted to a trading venue by a member or participant as part of any other liquidity provision activity carried out on the basis of terms pre-determined either by the issuer of the instrument which is the subject of the order or by the trading venue.

In relation to orders or quotes submitted as part of a market making agreement[12] pursuant to Articles 17 and 48 of Directive 2014/65/EU, London Stock Exchange will offer the choice of using dedicated Millennium Exchange connections or, by populating a Liquidity Provider flag on the Millennium Exchange order entry protocol.

London Stock Exchange will commence monitoring activity in relation to obligations under the MiFID II market making requirements as defined in RTS 8 from **3 January 2018**.

5.9 Stressed market conditions

In relation to stressed market conditions as defined in RTS 8 Article 6, London Stock Exchange will consider a 60-second period following the resumption of trading after volatility interruptions as stressed market conditions. Since resumption of trading after volatility interruptions are already broadcasted through real-time market data, no new market data messages will be disseminated in relation to this regulation.

[11] Field 8 of Annex I Table 2 of RTS 24.

[12] Subscription to these market making / liquidity provision agreements will be available through the Member Portal.

6.0 Summary Table – Deployment Approach

At go-live date of MIT Exchange Release 9.2

- Deployment of new version of trading protocols, including new timestamps granularity and alignment to UTC
- Deployment of new version of market data protocols (GTP)
- Introduction of a new control on the minimum value of iceberg orders at order entry/modification
- Negotiated transactions (cross orders) - Enhancements to price controls for cross orders
- Introduction of price collars on order entry/modification

On 2 January 2018 (MiFID II technical configuration)

- Update of 'liquid' vs. 'not liquid', ADNT and pre-trade LIS according to ESMA's MiFID II classifications for 2018
- Introduction of MiFID II tick tables
- Introduction of maximum order value validation on order entry/modification
- Negotiated transactions - Enhancements to price controls for cross orders
- Block Trade Facility - Switch from quantity to value-based control for the minimum size of Block Trades
- Negotiated transactions - cross orders on liquid ETCs, liquid ETNs and liquid fixed income instruments are disabled

3 January 2018 (MiFID II Rule and Policy Changes)

- Changes to the definition of Trading Capacities
- Post-trade validation of short codes for order record keeping requirements

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