Cboe Europe

Approach to MiFID Record Keeping

Version 1.4

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Contents

1 Introduction

1.1 Relevant Parties

In order to comply with RTS 24 - Record Keeping Requirements for Trading Venues, venues will need to obtain the following data points from their customers:

- Submitting Member/Participant
- Client Identification Code (either a Legal Entity Identifier (LEI) or a National ID)
- An identifier for the trader or algorithm responsible for the investment decision
- An identifier for the trader or algorithm responsible for the execution
- Any non-executing broker involved
- Whether the order arose due to Direct Electronic Access (DEA) or not
- Whether the order represents some for of liquidity provision activity

1.2 Related Requirements

Other parts of MiFID II have requirements that have a close overlap with these fields. Some relevant examples include:

- Requirement to block specific DEA clients (RTS 7)
- Requirement to block specific trader IDs (RTS 7)

1.3 Overall Approach

The overall approach to collecting the data required for record keeping is summarised in Figure 1 below.

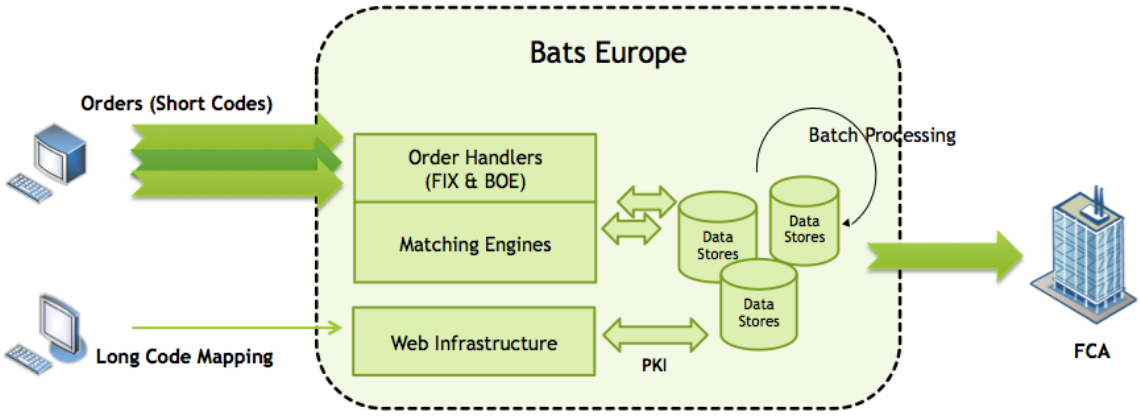

Figure 1: Cboe Overall Approach to Record Keeping

In order to reduce the amount of sensitive data flowing through the trading system, as well as minimise any latency impact due to large message sizes, Cboe will operate an approach that has Participants supply so called short codes on each order and supply a mapping file out of band on a pre- or post-trade basis.

Fields are being added to the order entry protocol (discussed later in this document), that allow specification of the client identifier, the decision maker for the investment decision and the responsible entity for the execution.

However, these fields will not support specification of the raw identifier. Participants must supply an integer, known as the 'short code', for the identifiers that are relevant to their order flow. This code must accurately depict the entity involved in this activity and be persistent throughout the day. The short code associated with the order can not be changed.

Separately, participants must supply a mapping from the 'short code' used on the order to the 'long code' that Cboe will be required to supply to the FCA, on their request. Participants may choose to either pre- or post-register their mapping files, but at the end of the day, Cboe must have a long code for every short code used that day. The value supplied may be changed, but can not be removed if used.

This registration process is available to permissioned users, who may use either a secure web application or the relevant Cboe Secure Web API in order to make relevant changes. The registration request may either be sent to our Internet accessible web server, or to a server only accessible over cross connects. Both servers have failover servers in our secondary data centre. Sensitive data is encrypted between the server and the data store and can not be decrypted by the server, although a masked version is available to help in any reconciliation Participants may wish to perform.

On FCA request, Cboe will combine order records with the provided mappings to produce the prescribed output and transfer the data to them in the mechanism they require.

2 Order Entry Protocol

2.1 Requirement to provide data on orders

The requirements suggest that venues will require identification codes to be present on every order so that checks can be made and, where necessary, orders blocked on submission.

If Participants were to provide these identifiers to venues in raw format on each order, this could result in a significant increase in message bandwidth. These would likely need to be preserved through the matching engine stream, causing internal bandwidth demands. This is undesirable, so we will use a mapping process: Participants will supply 'short codes' on their orders and supply the mapped 'long codes' out of band.

These short form codes could then be associated with the full information required under RTS 24, where the codes are transposed for the full underlying data when requested by a venues NCA. Whilst we will allow our Participants to pre-register their mapping files, we believe an End of Day post-registration process is also suitable.

Accordingly, we will be requiring participant to register (on a pre- or post-basis) all identifiers that they use, assign short numeric codes for such and then use these on each order. Verification of submission would be undertaken at the end of the day.

2.2 When Data is Required

Cboe has no non-executing brokers within its membership or user base.

For Direct Connections, or connections through a Service Bureau (even if through an affiliate):

- Client ID: Submission of this identifier will be required if Capacity=AOTC or MTCH.
- Trader or Algorithm responsible for the investment decision: This will always be required if Capacity=DEAL and may be required if Capacity=AOTC or MTCH and the firm is acting in a discretionary capacity.
- Trader or Algorithm responsible for the execution: Always required. Where the client of the firm has determined the timing and location of the execution then the reserved value for "NORE" should be set.
- DEA Flag: This should not be set.
- Liquidity Provision Flag: Should only be set if acting on own account and the order represents liquidity provision activity.

For DEA:

- Client ID: This should be set if Capacity=AOTC or MTCH. This should be blank if Capacity=DEAL.
- Trader or Algorithm responsible for the investment decision: This should not be set if Capacity=DEAL. This should be set if Capacity=AOTC or MTCH.
- Trader or Algorithm responsible for the execution: This should identify a trader or algorithm within the firm if Capacity=DEAL. This should be set to the reserved value for "NORE" if Capacity=AOTC or MTCH.
- DEA Flag: This should be set.
- Liquidity Provision Flag: This should not be set.

2.3 Protocol Details

2.3.1 FIX

The most accurate information will always be contained within the official Cboe Europe FIX Specification, but it is briefly repeated here. The following excerpt details the scope of the changes required on a New Order (35=D) message.

Tag	Name	Description
	Standard Message Header	*MsgType* (35) = D
1724	*OrderOrigination*	5 = DEA. Indicate DEA activity (as defined by MiFID II) is involved in the order. 0 = Non-DEA. (default) Other values are unsupported and will be rejected.
8015	*OrderAttributeTypes*	Optional. This FIX tag can contain multiple values. If more than one value is present, they must be separated by spaces. The presence of a value means, for example, the order is an algorithmic order. The absence of a value indicates otherwise. Cboe supports the following values: 2 = Liquidity Provision activity order. This indicates the order is related to any sort of liquidity provision activity, as defined by MiFID II. This flag is mandatory for orders which are part of a liquidity provision activity. Absence of this value indicates otherwise. 4 = Algorithmic order. This indicates that the order was placed as a result of an investment firm engaging in algorithmic trading. Absence of this value indicates otherwise.
453	*NoPartyIDs*	Indicates the number of instances of the repeating group *NewOrderPtyRptGrp* to follow. Defaults to zero. Currently optional, but will be mandatory when MiFID II comes into force.

Repeating Group *NewOrderPtyRptGrp* must occur the number of times specified in *NoPartyIDs* (453)

448	*PartyID*	The short code representing the client or decision maker represented by this block. Unsigned numerical only. Data corresponding to this short code must have been previously supplied, or will be supplied by the end of the calendar day, per our Rules. For clients, the following values are reserved for applicable use: Applicable to PartyRole value 3: 0 = NONE (No Client for this order) 1 = AGGR (An aggregation of multiple client orders) 2 = PNAL (Clients are pending allocation) Applicable to PartyRole value 12: 3 = NORE (Timing and location of the execution determined by the client of the Participant)
447	*PartyIDSource*	Must always be P (Short code identifier)
452	*PartyRole*	Specifies the role of the party to the trade. At this time, only the following values are valid: 3 = Client ID 12 = Executing Trader (the Executing Decision Maker) 122 = Investor ID (the Investment Decision Maker)
2376	*PartyRoleQualifier*	Provides further qualification of the PartyRole value. Valid values are: 0 = None (applicable only for the reserved Party IDs) 22 = Algorithm (applicable to PartyRole values 12 or 122) 23 = Firm or legal entity (LEI) (applicable to PartyRole value 3) 24 = Natural person (applicable to PartyRole values 3, 12 and 122)

2.3.2 BOE

The most accurate information will always be contained within the official Cboe Europe BOE v2 Specification, but it is briefly repeated here. The changes are limited to the New Order input bitfields, with the following excerpt detailing the scope of the changes required.

Byte	Bit	Field	
4	1	*MaturityDate*	–
	2	*StrikePrice*	–
	4	*PutOrCall*	–
	8	*RiskReset*	–
	16	*OpenClose*	–
	32	*CMTANumber*	–
	64	*TargetPartyID*	–
	128	*LiquidityProvision*	•
5	1	*Reserved*	–
	2	*AttributedQuote*	–
	4	*BookingType*	–
	8	*ExtExecInst*	–
	16	*ClientID*	•
	32	*InvestorID*	•
	64	*ExecutorID*	•
	128	*OrderOrigination*	•
7	1	*AlgorithmicIndicator*	•
	2	*CustomGroupId*	–
	4	*ClientQualifiedRole*	•
	8	*InvestorQualifiedRole*	•
	16	*ExecutorQualifiedRole*	•
	32	*CtiCode*	–
	64	*ManualOrderIndicator*	–
	128	*OperatorId*	–

An explanation of the highlighted input fields is provided below.

Field	Length	Data Type	Description
LiquidityProvision	1	Text	Corresponds to *OrderAttributeTypes* (8015) = 2 in Cboe FIX. This flag is used to indicate whether the order is related to any sort of liquidity provision activity, as defined by MiFID II. This flag is mandatory for orders which are part of a liquidity provision activity. `N` = Not Liquidity Provision (default) `Y` = Liquidity Provision
ClientID	4	Binary	The short code representing the client behind the order. Data corresponding to this short code must have been previously supplied, or will be supplied by the end of the calendar day, per our Rules. The value must be between 0 and 4,294,967,295. For clients, the following values are reserved for applicable use: 0 = NONE (No Client for this order) 1 = AGGR (An aggregation of multiple client orders) 2 = PNAL (Clients are pending allocation)

InvestorID	4	Binary	The short code representing the investment decision maker of the order. Data corresponding to this short code must have been previously supplied, or will be supplied by the end of the calendar day, per our Rules. The value must be between 0 and 4,294,967,295.
ExecutorID	4	Binary	The short code representing the execution decision maker of the order. Data corresponding to this short code must have been previously supplied, or will be supplied by the end of the calendar day, per our Rules. The value must be between 0 and 4,294,967,295. For executing decision makers, the following value is reserved for applicable use: 3 = NORE (Timing and location of the execution determined by the client of the Participant)
OrderOrigination	1	Text	Corresponds to *OrderOrigination* (1724) in Cboe FIX. 5 = (DEA). Indicates DEA activity (as deemed by MiFID II) is involved in this order. 0 = Non-DEA. (default) Other values are unsupported and will be rejected.
Algorithmic Indicator	1	Text	For orders and executions, this corresponds to *OrderAttributeTypes* (8015) = 4 in Cboe FIX. For Trade Capture Report, this corresponds to *AlgorithmicTradeIndicator* (2667) in Cboe FIX. Indicates that the order (or the reported trade in a Trade Capture Report) was placed as a result of an investment firm engaging in algorithmic trading. N = No algorithm was involved (default). Y = Algorithm was involved (ALGO).
ClientQualifiedRole	1	Binary	Required whenever a `ClientID` is specified. Valid values are: 0 = None - Only applicable if using a reserved value for `ClientID` 23 = Firm or legal entity (LEI) 24 = Natural person
InvestorQualifiedRole	1	Binary	Required whenever an `InvestorID` is specified. Valid values are: 22 = Algorithm 24 = Natural person
ExecutorQualifiedRole	1	Binary	Required whenever an `ExecutorID` is specified. Valid values are: 0 = None - Only applicable if using a reserved value for `ExecutorID` 22 = Algorithm 24 = Natural person

3 Identifier Management

Having provided the short codes on the individual orders entered into the exchange, you must also, on either a pre- or post-order basis (end of day latest), provide the mapping to the long code, which will be either a Legal Entity Identifier (LEI), a National ID or an Algorithm ID.

The decision as to whether to pre- or post-register is entirely within your control. If, for example, you have a limited set of traders, you may choose to register all of them immediately and only perform updates in line with staffing changes. On the other hand, you might prefer to only inform us about a client once that client has had an order sent to Cboe. In any case, data must be provided by the end of the day in which a short code was utilised. Previous registrations carry across to future dates; you only need to tell us about changes.

The registration process is available to permissioned users, who may use either a secure web application or the relevant Secure Web API in order to make relevant changes. The registration request may either be sent to our Internet accessible web server, or to a server only accessible over cross connects. Both servers have failover servers in our secondary data centre. Sensitive data is encrypted between the server and the data store and can not be decrypted by the server, although a masked version is available to help in any reconciliation Participants may wish to perform.

Whilst the definitive list of actions available through the API is detailed in the Specification document, a brief recap is provided here:

- Register Identifiers: Register long codes to short code identifiers by uploading a CSV file with the mapping, along with the effective date range and what type of client or a decision maker each identifier represents.
- View Missing Identifiers: Download a CSV file containing any short codes that have been supplied on orders via FIX or BOE, but which have not yet had a long code identifier registered against them for that date.
- View Identifiers: Download a CSV file containing the mappings between short and long codes. Long code identifiers are encrypted. Long codes are provided back to Participants in a partially masked form for security.

For firms interested in the technical specifications of the Secure Web API, they can refer to the following specifications:

- General Details about the Secure Web API:
  http://cdn.batstrading.com/resources/participant_resources/BATSEuro_Secure_Web_API.pdf
- MiFID II Identifier Management Specification:
  http://cdn.batstrading.com/resources/participant_resources/Bats_Europe_MiFID2_Identifier_Management_Specification.pdf

4 Support

If you have any queries regarding MiFID Record Keeping, please contact your account manager directly. Other useful numbers are set out below.

Sales Team

SalesEurope@cboe.com

Phone: +44.207.012.8906

Participant Services

ParticipantServicesEurope@cboe.com

Phone: +44.207.012.8902

Trade Desk

TradeDeskEurope@cboe.com

Phone: +44.207.012.8901

5 Revision History

Version	Date	Description
1.4	24/11/2017	Updated FIX and BOE fields to match those used in the FIX and BOE specifications. Updated guidance on when fields need to be populated. Updated functionality provided by MiFID II Identifier Management Application.
1.3	29/09/2016	Redefined PartyIDSource and added new Algo field. Corrected valid values for Algo and LiquidityProvision fields.
1.2	22/08/2016	Updated specification links to reflect content being more generally released
1.1	11/08/2016	Updated PartyIDSource values
1.0	23/03/2016	Initial Version