



London
Stock Exchange

London Stock Exchange

MIT204 - Post Trade Gateway (FIX 5.0)

Issue 11.4

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Stock Exchange Group

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Disclaimer

The London Stock Exchange Group has taken reasonable efforts to ensure that the information contained in this publication is correct at the time of going to press, but shall not be liable for decisions made in reliance on it. The London Stock Exchange Group will endeavour to provide notice to customers of changes being made to this document, but this notice cannot be guaranteed. Therefore, please note that this publication may be updated at any time. The information contained is therefore for guidance only.

1.0 Introduction

The London Stock Exchange has provided a post trade gateway that will enable member firms to receive real-time information on executed trades. This interface can not be used to submit orders or quotes or receive market data.

The interface is a point-to-point service based on the technology and industry standards TCP/IP, FIXT and FIX. The session and application event models and messages are based on versions 1.1 and 5.0 (Service Pack 2) of the FIXT and FIX protocols respectively.

1.1 Purpose

The purpose of this document is to provide a technical description of the post trade gateway available on the Millennium Exchange platform.

1.2 Readership

This document outlines how to connect to the post trade gateway and the detailed message types and fields used.

When read in conjunction with the other Millennium Exchange guides, it is intended that these documents provide all of the details directly connected London Stock Exchange customers require to develop to the new services.

This document is particularly relevant to technical staff within the Exchange's member firms.

1.3 Document series

This document is part of a series of documents providing a holistic view of full trading and information services available from the London Stock Exchange post the migration to Millennium Exchange.

The current series of documents are set out below:

- MIT201 - Guide to the New Trading System
 - MIT202 – FIX Trading (FIX 5.0) Gateway Specification
 - MIT203 – Native Trading Gateway Specification
 - **MIT204 – Post Trade Gateway (FIX 5.0) Specification (this document)**
 - MIT205 – Drop Copy Gateway (FIX 5.0) Specification

- MIT301 - Guide to Market Data Services
 - MIT303 – MITCH Message Specification
 - MIT304 - Regulatory News Service Specification

- MIT401 - Reference Data Service Specification

- MIT501 – Guide to the Customer Testing Services
 - MIT502 - Guide to Application Certification
 - MIT503 - Certification Report

- MIT601 – Guide to Trading Services Disaster Recovery

- MIT701 - Guide to Sponsored Access
- MIT801 – Reject Codes

This series principally covers non-regulatory information. It does not override or supersede the [Rules of the London Stock Exchange](#), the AIM Rules or Admission and Disclosure Standards and is intended to be read in conjunction with these Rules documents and the Millennium Exchange Parameters document.

The latest version of this document series can be found at the following link:

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

1.4 Document history

This document has been through the following iterations:

Issue	Date	Description
8.0	23 May 2011	Eighth issue of this document published via the London Stock Exchange's website and distributed to customers.
8.1	14 June 2011	New logon functionality will now be introduced in the next functional release which is yet to be scheduled. Please refer to page 16.
9.0	23 September 2011	Ninth issue of this document published via the London Stock Exchange's website and distributed to customers.
10.0	9 December 2011	Tenth issue of this document published via the London Stock Exchange's website and distributed to customers.
10.1	21 December 2011	Removed unused Trade Sub Types
10.2	28 September 2012	Amended to include new PriceDifferential tag. Published on London Stock Exchange's website and distributed to customers.
10.3	1 November 2012	Amended to include Connectivity Policy section 3.4
10.4	22 March 2013	Amended to reflect the latest Millennium enhancements.
10.4	25 April 2013	Update to Tag 1123 in Section 7.3.1.

11.0	5 July 2013	Amended to reflect the latest Millennium enhancements.
11.1	26 July 2013	Introduction of Client and Server initiated TCRs and some further amendments to reflect the latest Millennium enhancements.
11.1	25 November 2013	Amended to reflect Description changes to Trade Capture Report – Client Initiated. Section 7.3.1.
11.2	2 June 2014	Amended to reflect the latest Millennium enhancements. Sections 2.7; 7.3.2 and 2.8.1.2.
11.3	31 October 2014	Amended to reflect rebranding ITCH to MITCH
11.4	21 January 2015	<p>The following sections have been amended to support the new Cross Order functionality and additional amendments.</p> <p>2.4 Removed TradePublishIndicator(1390) from Gateway level field validation</p> <p>2.7.1.5 Clarification on the values for the MatchStatus (573) and TransactTime (60) fields in the acknowledgement of a Cancellation Request.</p> <p>2.7.1.8 Clarification on the values for the MatchStatus (573) and TransactTime (60) fields in the acknowledgement of a pre-release request</p> <p>2.8.1.2 Clarification on the requirements for the NoSides(552) block when submitting an on-book trade cancellation request</p> <p>4.1 Further clarifications on logon behaviour</p> <p>5.4.1.1 Further clarifications on the AppLastSeqNum (1350) and ApplSeqNum (1181) fields in messages sent by the server</p> <p>7.3.2 Addition of 2 new fields, Cross ID (548) and Cross Type (549), in the server initiated Trade Capture Report message to support the new Cross Order functionality</p> <p>7.3.6 Clarification on the value provided in the TransactTime (60) field in a Trade Capture Report Ack message</p> <p>See MIT902 – Cross Orders Message Change Guidelines for full details on all changes.</p>

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.

1.5 Enquiries

Please contact either the Technical Account Management Team or your Technical Account Manager if you have any questions about the Millennium Exchange services outlined in this document: Client Technology Services (UK) can be contacted at:

- Telephone: +44 (0)20 7797 3939
- Email: londontam@londonstockexchange.com

2.0 Service Description

Clients will receive real-time information on the trades executed on the Exchange along with notifications of any trade cancel or correction. The details of trades executed on previous trading days are not available via this service.

2.1 Connection configuration

A member firm connection will be configured by the Exchange to receive all of its trades. If required, a member firm could be configured to only receive trades for selected users and securities.

For the purpose of redundancy, the service supports the configuration of multiple post trade connections to send the same information on the activity of the selected firms/mnemonics.

2.1.1 Real-time connections

A real-time client will receive the details of each eligible trade immediately after it is executed. Please refer to Section 5 for a description of how the trades executed during the time a real-time client is disconnected from the server may be recovered.

2.1.2 Query-based service

A query-based client will not receive any real-time notifications of its eligible trades. Such clients are expected to request the server for the details of trades as and when they are needed as outlined below.

2.1.2.1 Trade Capture Report Requests / Own Trade Book Download

A client may use the Trade Capture Report Request message to request the details of all eligible trades or those that meet certain criteria. The server will respond with a Trade Capture Report Request Ack to indicate, via the TradeRequestStatus (750) and Trade RequestResult (749) fields, whether the request is successful or not.

If a request is accepted, the number of Trade Capture Reports that will be sent in response to the request will be indicated in the TotNumTradeReports (748) field of the Trade Capture Report Request Ack. The server will transmit the requested Trade Capture Reports immediately after the Trade

Capture Report Request Ack. Each Trade Capture Report will include the TradeRequestID (568) of the request it is sent in response to. The last Trade Capture Report will include a LastRptRequested (912) of Last Message (Y).

If a request is rejected, the reason will be specified in the field TradeRequestResult (749) of the Trade Capture Report Request Ack.

The Trade Capture Report Request message can only be used to request a snapshot of the current eligible trades. It can not be used to subscribe to Trade Capture Reports.

Request for all Trades

The Trade Capture Report Request should include a TradeRequestType (569) of All Trades (0) if the client wishes to request the details of all eligible trades.

Request for selected Trades

The Trade Capture Report Request should include a TradeRequestType (569) of Trades Matching Specified Criteria (1) if the client wishes to request the details of eligible trades for a selected set of instruments or for a specified party, trade type or order.

The SecurityID (48) field of the Trade Capture Report Request may be used if the request relates to a single instrument.

The ExecType (150) field of the message may be used if the request is limited to cancelled trades, corrected trades or trades that have not been cancelled or corrected.

If a particular Trade Capture Report Request contains multiple criteria (e.g. SecurityID and Account), the server will treat it as a request for trades that match all of the specified criteria. If no trades match the specified criteria, the server will reject the request with a TradeRequest Result (749) of Cannot Match Selection Criteria (100).

If a user submits a TradeRequestType(569) outside the Millennium IT supported range, but supported by FIX (i.e. 2,3,4. 0 and 1 are supported by Millennium IT) the system should reject the request with a Trade Capture Report Request Ack with TradeRequestResult (749) set to 100 (TradeRequestType not supported).

If a user submits a TradeRequestType (569) outside FIX supported range (i.e. outside 0,1,2,3,4) the system should send a Reject (session-level) with a SessionRejectReason (373) of 5 (Value out of range for this tag).

2.2 Trade Information

The FIX Trade Capture Report message is utilised by the service to transmit the details of each trade. A separate Trade Capture Report will be sent for each side of a trade. In the case of a trade,, TradeHandlingInstr (1123) will be Trade Confirmation (0), ExecType (150) will be Trade (F), MatchStatus (573) will be Matched (0), TradeReportTransType (487) will be New (0) and

TradeReportType (856) will be Submit (0) (In certain cases of off book trade reports, TradeReportTransType(487) may be set to Replace(2)).

For example, if an off book trade is submitted which is published immediately, the submitting party first receives a Trade Capture Report Ack followed by a Trade Capture Report (where TradeReportTransType(487) set to Replace (2)). No further Trade Capture Report is sent with a TradeReportTransType(487) set to Released(3).

A Trade Capture Report with a TradeReportTransType (487) of Released (3) indicates that a previously reported off book trade has been pre-released on the market data feed or if a delayed off book trade is published with the following the initial delay.

For example, If an off book trade is submitted which is published with a delay, the submitting party first receives a Trade Capture Report Ack followed by a Trade Capture Report (where TradeReportTransType(487) set to Replace(2)). Then when the trade is actually published, it receives another Trade Capture Report with TradeReportTransType(487) set to Released (3).

Each message will contain both basic and value added information on the trade (e.g. price quantity, consideration, settlement date, accrued interest, etc.), the security (e.g. ISIN) and the parties (e.g. trading firm). It will also contain information related to the computation of execution fees (e.g. maker or taker, trade type, etc.).

2.2.1 Party Identifiers

ID	Description	PartyRole (452)
Executing Firm	The trading firm the executed order was submitted under.	1
Trading Group	The unit of the firm the executed order was submitted under. Must be specified when reporting a trade.	76
Counterparty	Counterparty of the trade in case the trade is bilaterally settled or is subjected to SETS Internalisation. For cleared trades, the CCP will be stamped as the counterparty. For non members, the MemberID will NONMEMBER01	17
Trader ID	Trader ID of the trader who executed the trade.	12
Clearing Organisation	Clearing member for the particular trade.	21

Entering Firm	The firm which entered the trade.	7
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2.2.2 Trade, Execution and Order Identifiers

2.2.2.1 Trade Report ID

The TradeReportID (571) of each Trade Capture Report is unique across trading days. The Trade Capture Reports published to report the two sides of a trade will contain different TradeReportIDs. A Trade Capture Report published to notify a client of a trade cancel includes the TradeReportID of the message that was published to report the trade in the TradeReportRefID (572) field

2.2.2.2 Trade ID

The Trade Capture Reports published to report the two sides of a particular trade will contain the same TradeID (1003). Trade IDs are unique across trading days. A Trade Capture Report published to notify a client of a trade cancel or correction includes the TradeID (1003) of the relevant trade.

2.2.2.3 Execution ID

A Trade Capture Report will contain the Execution ID of the Execution Report message sent by the Trading Gateway to report the execution of an order to the firm that submitted it. This Execution ID will be specified in the SideExecID (1427) field of the Trade Capture Report.

The Execution Reports published to report the two sides of an execution will contain different Execution IDs which are unique across trading days.

2.2.2.4 Trade Link ID

A Trade Capture Report will contain the Trade Link ID which will be the same for all orders within aggression of an order.

All the Trade Capture Reports which were generated from an auction will have the same Trade Link ID.

2.2.2.5 Order IDs

The matching system's order identification number for the executed order will be included in the OrderID (37) field of the Trade Capture Report.

Order IDs are unique across trading days. In terms of the FIX protocol, unlike ClOrdID (11) which requires a chaining through Cancel/Replace Requests and Cancel Requests, the OrderID (37) of an order will remain constant throughout its life.

2.2.2.6 Client Order IDs

In the case of orders, the ClOrdID (11) included in the Trade Capture Report will be that specified when the order was submitted. An order's ClOrdID (11) will be updated each time an Order Cancel/Replace Request or an Order Cancel Request is accepted.

In the case of quotes, the ClOrdID (11) included in the Trade Capture Report will be the QuoteID (117) or QuoteEntryID (299) of the executed quote.

2.2.2.7 Trade Type

An indication of whether the trade was executed on or off the order book will be specified in the TrdType (828) field of a Trade Capture Report. In the case of an off book trade, the message will also include the type of off book trade in the field TrdSubType (829). Please refer to Section 7.3 for a list of valid off book trade types.

2.2.2.8 Information for billing

Each Trade Capture Report will specify the methodology under which a trade was executed (e.g. continuous trading, auction, etc.), the type of interest (e.g. order, quote, etc.) and whether an order was a maker or taker of liquidity via the MatchType (574), OrderCategory (1115) and SideLiquidityInd (1444) fields respectively.

In the case of trades executed during an auction, both sides of the trade will be flagged as passive.

2.3 Trade cancels

Market Operations may cancel a trade on behalf of a member firm. The server will transmit Trade Capture Reports to the relevant clients to notify them of a trade cancel.

The cancelled trade will be identified in the TradeReportRefID (572) and TradeID (1003) fields.

In the case of a trade cancel, TradeReportTransType (487) will be Cancel (1) and TradeReportType (856) will be Trade Break (7).

2.4 Application Level Validations

When the TCR Ack for a withdrawal request, pre-release request or cancel request/response for an Off-Book trade is generated at the application level:

If the TradeID of a withdrawal request, pre-release request or cancel request/response is invalid or is not for an active trade in the system (i.e. has been withdrawn or cancelled), the MatchStatus(573) will be stamped 1(Unmatched).

If the TradeID is valid and the trade is an active trade in the system (i.e. already matched and has not been cancelled), MatchStatus(573) will be 0(Matched). Under Single Sided Model a trade considered as cancelled when a request to cancel it has been accepted by the system. Under dual sided model a trade is cancelled only when the counter party confirms the cancellation. MatchStatus(573) will be stamped appropriately in such cases.

If the TCR Ack for an Off-Book trade is generated at Post Trade Gateway interface level, the MatchStatus(573) will always be 1(Unmatched).

Following field specific validations are performed at gateway level:

1. TradeHandlingInstr(1123)

2. TradeReportType(856)
3. TradeReportTransType(487)
4. ~~TradePublishIndicator(1390)~~
5. NoSides (552)
6. Side(54)
7. NoPartyIDs (453)
8. PartyID(448)
9. PartyIDSource(447)
10. PartyRole(452)
11. OrderCapacity(528)
12. TradeID(1003)

2.5 Timestamps and dates

The timestamps SendingTime (52), OrigSendingTime (122) and TransactTime (60) should be in UTC and in the YYYYMMDD-HH:MM:SS.sss format.

All dates (i.e. SettlDate (64), MaturityDate (541) and IssueDate (225)) will be in the YYYYMMDD format and specified in the local date for the server (i.e. not in UTC).

2.6 Encryption

The encryption of messages between the client and server is not supported.

2.7 Off book trade reporting

The server supports the following methodology for the reporting of privately negotiated trades:

- (i) **Single-sided trade report** – The trade is reported by only one of the counterparties which should include both counterparties of the trade in a single Trade Capture Report. A Trade Capture Report Ack will be used by the server to acknowledge the receipt of or reject a trade report. The server will transmit a Trade Capture Report if the trade is confirmed. Clients can cancel a confirmed trade.

Please note, a client will receive a rejection for off-book trade reports with trade types LC (Late correction) or PC (Previous Day Contra) where the trade date is the same as the submission date.

2.7.1.1 Reporting a trade

The client should submit a pre-negotiated trade for confirmation via a Trade Capture Report containing both sides of the trade (i.e. NoSides (552) = 2). Each of the sides groups will contain a Parties block which contains information of only the party which participated in the particular side of the trade. The firm which reports the trade to the system will be identified via PartyRole(452) of Executing Firm (1) and the contra-party will be identified via PartyRole(452) of Counterparty Firm (17). The trader group which participated in the trade is required to be identified via PartyRole(452) of Trader Group(76) for the Executing Firm while the trade group of the counterparty can be specified optionally. It is also possible to (optionally) enter the trader who executed trade via PartyRole(452) of Trader ID(12).

The message should include a trade identifier agreed by the two counterparties in the field FirmTradeID (1041). The Trade Capture Report should also include a TradeReportTrans Type (487) of New (0), a TradeReportType (856) of Submit (0) and a TradeHandlingInstr (1123) of Two-Party Report (1). The time at which the privately negotiated trade was concluded should be specified in the TransactTime (60) field.

2.7.1.2 Acknowledgement of a trade

A trade report will be acknowledged by the server via a Trade Capture Report Ack. The trade report being acknowledged will be identified in FirmTradeID (1041) field. The TrdRptStatus (939) field will indicate whether the trade report is Accepted (0) or Rejected (1). If a trade report is rejected, the reason for the rejection will be specified in the TradeReportRejectReason (751) field. The MatchStatus (573) of the message will be Unmatched (1). The TransactTime (60) will contain the same value submitted with the request¹.

2.7.1.3 Confirmation of a trade

If the trade is confirmed, the service will transmit a Trade Capture Report with a TradeHandlingInstr (1123) of Trade Confirmation (0). The pre-negotiated trade being confirmed will be identified via the FirmTradeID (1041) field. The identifier assigned to the trade will be specified as the TradeID (1003).

The Trade Capture Report transmitted by the service will also include a TradeReportTransType (487) of Replace (2), a MatchStatus (573) of Matched (0), a ExecType (150) of Trade (F), a TradeReportType (856) of Submit (0), a TradeHandlingInstr (1123) of Trade Confirmed (0) and a OrigTradeHandlingInstr (1124) of Two-Party Report (1).

The Trade Capture Report transmitted by the server for the counterparty will include all the details above with the exception that TradeReportTransType (487) being set to New (0).

2.7.1.4 Cancellation of a trade

The participant who submitted the trade can request the trade to be cancelled.

The request for cancellation of a trade should be submitted via a Trade Capture Report which should include a TradeReportType (856) of Trade Report Cancel (6) and a TrdType (828) of Off book Trade (54). The trade report to be cancelled should be identified via TradeID (1003) field.

The Trade Capture Report should also include a TradeReportTransType (487) of New (0) and a TradeHandlingInstr (1123) of Two-Party Report (1).

The system should validate the side specified for the executing firm when a cancel request is submitted for an off-book trade. This should apply to both reporting models (i.e. single sided and dual sided). The applicable reject code and reason should be '7058' and 'Invalid side for executing firm' respectively.

If an off-book trade cancellation is sent without tag TradeHandlingInstr(1123) then it is treated as an on-book trade cancel. Since an on-book trade cancel should only contain a single side (and an off-book trade cancel contains two sides), a Trade Capture Report Ack is received with Trade Type(828) of Regular Trade(0), MatchStatus(573) of Matched(0) and TradeReportRejectReason(751)= 7815 (Invalid NoSides).

¹ To identify a registration request, the TradeReportType(856) and TradeReportTransType(487) fields are used. If at least one of these fields are missing in the request, the value sent in the TransactTime(60) field of the TCR Ack is the time the message was generated by the server

2.7.1.5 Acknowledgement of a Cancellation Request

A cancel request will be acknowledged by the server via a Trade Capture Report Ack. The request being acknowledged will be identified via the TradeID (1003) field. The TrdRptStatus (939) will indicate whether the request is Accepted (0) or Rejected (1). If a cancel request is rejected, the reason for the rejection will be specified in the Trade ReportRejectReason (751) field.

The MatchStatus (573) of the message will be Matched (0)². The TransactTime (60) will contain the Agreed Time of the trade.

2.7.1.6 Confirmation of the cancellation

If the trade is cancelled, the server will transmit a Trade Capture Report to each of the two counterparties. Each message will include a TradeReportType (856) of Trade Report Cancel (6). The trade being cancelled will be identified via the FirmTradeID (1041), TradeID (1003) and TradeReportRefID (572) fields.

The Trade Capture Reports will include a TradeHandlingInstr (1123) of Trade Confirmation (0), a MatchStatus (573) of Unmatched (1), an ExecType (150) of Trade Cancel (H) and an OrigTradeHandlingInstr (1124) of Two-Party Report (1). The TradeReportTransType (487) will be Replace (2) in the case of the party that requested the cancellations and Cancel (1) in the case of the contra party.

2.7.1.7 Pre-release of a trade

The participant who submitted the trade can request the trade to be published before the end of the delay period.

The request for pre-release of a trade should be submitted via a Trade Capture Report which should include a TradeReportType (856) of Submit (0) and TradeReportTransType (487) of Release (3).

The trade report to be pre-released should be identified via TradeID (1003) field.

The Trade Capture Report should also include a TradeHandlingInstr (1123) of Two-Party Report (1). Also SecurityIDSource(22) should be specified along with SecurityID(48).

The system should validate the side specified for the executing firm when a pre-release is submitted for an off-book trade. This should apply to both reporting models (i.e. single sided and dual sided). The applicable reject code and reason should be '7058' and 'Invalid side for executing firm' respectively.

2.7.1.8 Acknowledgement of a pre-release request

A pre-release request will be acknowledged by the server via a Trade Capture Report Ack. The request being acknowledged will be identified via the TradeID (1003) field. The TrdRptStatus (939) will indicate whether the request is Accepted (0) or Rejected (1). If a pre-release request is rejected, the reason for the rejection will be specified in the Trade ReportRejectReason (751) field.

² When the trade the withdrawal request, pre-release or cancel request/response is sent for (E.g. incorrect TradeID or not an active trade in the system) cannot be found, TCR Ack should have a MatchStatus (573) of Unmatched (1). When the trade, for which the pre-release or cancel request/response is sent for, is an active trade, TCR Ack should have a MatchStatus (573) of Matched(0).

The MatchStatus (573) of the message will be Matched (0). The TransactTime (60) will contain the Agreed Time of the trade.

2.7.1.9 Confirmation of a Pre-Release

If the trade is released on the market data feed, the server will transmit a Trade Capture Report to each of the two counterparties. Each message will include a TradeReportTrans Type (487) of Release (3). The trade being pre-released will be identified via the FirmTradeID (1041) and TradeID (1003) fields.

The Trade Capture Reports will also include a TradeHandlingInstr (1123) of Trade Confirmation (0), a MatchStatus (573) of Matched (0), an ExecType (150) of Trade (F), a TradeReportType (856) of Submit (0) and an OrigTradeHandlingInstr (1124) of Two-Party Report (1).

2.7.1.10 FIX Tag Values

Event	TCR sent from the server	
	If recipient is the reporting party	If recipient is the counterparty
Off Book Trade Confirmation	TradeReportType(856) = 0 - Submit TradeReportTransType(487) = 2 - Replace	TradeReportType(856) = 0 - Submit TradeReportTransType(487) = 0 - New
Off Book Trade Cancellation	TradeReportType(856) = 6 - Trade Report Cancel TradeReportTransType(487) = 2 - Replace	TradeReportType(856) = 6 - Trade Report Cancel TradeReportTransType(487) = 1 - Cancel
Off Book Trade Pre-release or publish	TradeReportType(856) = 0 - Submit TradeReportTransType(487) = 3 - Release	TradeReportType(856) = 0 - Submit TradeReportTransType(487) = 3 - Release

2.8 Cancellation of on-book trades

This section outlines event flow for the cancellation of on book trades by participants.

An on book trade will only be cancelled if requests to cancel it are received from both counterparties. Each counterparty is required to submit its cancel request separately via a Trade Capture Report. The server will use a Trade Capture Report Ack to acknowledge or reject each such request. Once both cancel requests are received, the server will confirm the trade cancellation to each of the counterparties via separate Trade Capture Reports. A counterparty may not withdraw a pending trade cancellation request. Unmatched trade cancellation requests do not carry forward to the next trading day.

2.8.1 Submitting a cancellation request

A client should submit a cancel request via a Trade Capture Report. The message should include the identifier assigned to the trade by Exchange in the TradeID (1003) field. The message should also include a TradeReportType (856) of Trade Report Cancel (6), a TradeReportTransType (487) of New (0), NoSides (552) =1 and the identity of the instrument.

2.8.1.1 Security Identification

Instruments may be identified using the SecurityID (48) field. The Trade Capture Report Ack message transmitted by the server in response to a Trade Capture Report will contain the identity of the instrument in the SecurityID (48) Symbol (55) field. The Trade Capture Report Ack message transmitted by the server in response to a Trade Capture Report will contain the identity of the instrument in the SecurityID (48) field.

2.8.1.2 Trader group

Privilege to submit off book trades are assigned at the level of trader groups whereas the privilege to cancel on book trades is granted at the ComplID level. A Trade Capture Report submitted by a client for an on book trade cancellation should contain the Side(54) field in the NoSides(552) block.

If the NoSides(552) block does not contain the Side(54) field in the on book trade cancellation message, then the system will reject the message. The NoPartyID(453) group is ignored on the TCR submitted for the cancellation of an on book trade.

2.8.2 Acknowledgement of the cancellation request

A cancel request will be acknowledged by the server via a Trade Capture Report Ack. The request being acknowledged will be identified via the TradeID (1003) field. The TrdRptStatus (939) will indicate whether the request is Accepted (0) or Rejected (1). If a cancel request is rejected, the reason for the rejection will be specified in the Trade ReportRejectReason (751) field. The MatchStatus (573) of the message will be Matched (0).

2.8.3 Confirmation of the cancellation

The trade will be cancelled by the system if requests to cancel it are received and confirmed from both counterparties. The server will transmit a Trade Capture Report to each of the two counterparties to confirm the cancellation.

Each message will include an ExecType (150) of Trade Cancel (H) and a TradeReportType (856) of Trade Report Cancel (6). The trade being cancelled will be identified via the TradeID (1003) and TradeReportRefID (572) fields. The messages will include a Trade HandlingInstr (1123) of Trade Confirmation (0), a TradeReportTransType (487) of Cancel (1) and a MatchStatus (573) of Unmatched (1).

2.9 Trade Identifiers

2.9.1 Firm Trade ID

The server does not validate the FirmTradeID (1041) of each trade for uniqueness. However, it is necessary that counterparties assign a unique FirmTradeID to each off book trade. The FirmTradeID (1041) field will be used only to identify the off book trade up until the trade is confirmed by the system, once confirmed, the TradeID (1003) assigned to the trade by the system should be used for cancellation and pre-release requests.

Customers should note that Firm Trade ID (1041) is limited to 50 characters. Any Trade Capture Report submitted with a length greater than this will be rejected via a Reject message (35=3) with a Session Reject Reason (373) = 5 and Text (58) = "Value out of range for this tag."

2.9.2 Trade ID

The Trade ID (1003) of each trade confirmed by the service is unique across trading days.

3.0 Connectivity

3.1 ComplIDs

The ComplID of each client must be registered with The Exchange before FIX communications can begin. A single client may have multiple connections to the server (i.e. multiple FIX sessions, each with its own ComplID).

The gateway server will be assigned a ComplID. The ComplID of the server is **PTGW**. The messages sent to the server should contain the ComplID assigned to the client in the field SenderComplID (49) and ComplID of the server in the field TargetComplID (56). The messages sent from the server to the client will contain ComplID of the server in the field SenderComplID (49) and the ComplID assigned to the client in the field TargetComplID (56).

3.1.1 Passwords

Each new ComplID will be assigned a password on registration which must be changed via the Logon message. The status of the new password (i.e. whether it is accepted or rejected) will be specified in the SessionStatus (1409) field of the Logon message sent by the server to confirm the establishment of a FIX connection. The new password will, if accepted, be effective for subsequent logins.

In terms of the London Stock Exchange password policy, the initial password of each username must be changed at least once. If not, the client will be unable to login to the server. In such a case, the client should contact the London Stock Exchange.

New passwords should adhere to the rules below:

- Minimum length – 8 characters
- Maximum length – 14 characters
- Minimum numeric characters – 1 character
- Minimum alpha characters – 1 character
- Minimum special characters – 1 character

3.2 Production IP addresses and ports

The IP addresses and ports for the post trade gateway will be published in a separate configuration document which can be found on the Millennium Exchange Technical Information website.

3.3 Failover and recovery

The system has been designed with fault tolerance and disaster recovery technology that ensures that trading should continue in the unlikely event of a process, gateway or site outage.

On unexpected disconnection from the primary gateway, a customer should ensure that their application behaves in accordance with the London Stock Exchange's connectivity policy.

3.4 Connectivity Policy

An application should attempt to connect a maximum of 3 times to the primary gateway with a minimum time out value of 3 seconds between attempts before attempting to connect to the secondary gateway – and this should be retried a maximum of a further 3 times. After 6 failed connection attempts (3 on each gateway) the clients should contact London Stock Exchange for further guidance.

Information on London Stock Exchange's Connectivity Policy can be found at the following link:<http://www.londonstockexchange.com/products-and-services/technical-library/technical-guidance-notes/technical-guidance-notes.htm>

4.0 FIX connections and sessions

4.1 Establishing a FIX connection

FIX connections and sessions between the client and server are maintained as specified in the FIX protocol.

Each client will use the assigned IP address and port to establish a TCP/IP session with the server. The client will initiate a FIX session at the start of each trading day by sending the Logon message. The client will identify itself using the SenderCompID (49) field. The server will validate the CompID, password and IP address of the client.

Once the client is authenticated, the server will respond with a Logon message. The SessionStatus (1409) of this message will be Session Active (0). If the client's Logon message included the field NewPassword (925) and the client is authenticated, the SessionStatus (1409) of the Logon message sent by the server will indicate whether the new password is accepted or rejected.

The client must wait for the server's Logon message before sending additional messages. If additional messages are received from the client before the exchange of Logon messages, the TCP/IP connection with the client will be disconnected.

If a logon attempt fails because of an invalid SenderCompID, TargetCompID, IP address, invalid password or because the user does not have the appropriate privileges, the server will break the TCP/IP connection with the client without sending a Logout or Reject message. If during a logon of a SenderCompID, the server receives a second connection attempt via different TCP/IP connection while a valid FIX session is already underway for that same SenderCompID, the server will break the TCP/IP connection with the second connection without sending a Logout or Reject message. As the logon attempt failed, the server will not increment the next inbound message sequence number expected from the client.

If a logon attempt fails because of an expired password, a locked CompID or if logins are not currently permitted, the server will send a Logout message and then break the TCP/IP connection with the client. In these scenarios the next inbound sequence number expected from the client will be incremented but the outbound sequence number will not be incremented. The message sequence number '1' will be sent with the Logout message.

If a logon attempt fails because of a session level failure (e.g. due to invalid EncryptMethod or DefaultAppVerID...etc) both the inbound sequence number and the outbound sequence number will not be incremented. The message sequence number '1' will be sent with the Logout message.

However if a session level failure occurs due to a message sent by a client which contains a sequence number that is less than what is expected and the PossDupFlag (43) is not set to "Y", then the server will send a Logout message and terminate the FIX connection. In this scenario the inbound sequence number will not be incremented but the outbound sequence number will be incremented.

If during a logon of a SenderCompID, the server receives a second connection attempt via the same TCP/IP connection while a valid FIX session is already underway for that same SenderCompID, the server will immediately break the TCP/IP connection with the client without sending any messages. If the server receives another connection attempt from the same SenderCompID, while a session is already established, the connection attempt will be rejected via a Reject message without breaking the existing TCP/IP connection with the client. The server will increment the next inbound message sequence number expected from the client as well as its own outbound message sequence number.

The impact of logon failures on sequence numbers is summarised in the table below:

Reason for Logon Failure	Session status (of logout)	Inbound Sequence Number	Outbound Sequence Number
Invalid or expired password	8 (password expired)	Incremented by 1	Does not increase (defaulted to 1)
Locked/suspended/inactivated CompID	6 (account locked)	Incremented by 1	Does not increase (defaulted to 1)
Logins are not currently permitted	7 (logins are not allowed)	Incremented by 1	Does not increase (defaulted to 1)
Session level failure (e.g. due to invalid EncryptMethod or DefaultAppVerID etc)	101 (logout session level failure)	Does not increase	Does not increase (defaulted to 1)
Login sequence number is less than the expected sequence number	101 (logout session level failure)	Does not increase	Incremented by 1
Second connection attempt	n/a	Incremented by 1	Incremented by 1

4.2 Maintaining a FIX session

4.2.1 Message Sequence Numbers

As outlined in the FIX protocol, the client and server will each maintain a separate and independent set of incoming and outgoing message sequence numbers. Sequence numbers should be initialised to 1 (one) at the start of the FIX session and be incremented throughout the session.

Monitoring sequence numbers will enable parties to identify and react to missed messages and to gracefully synchronize applications when reconnecting during a FIX session.

If any message sent by the client contains a sequence number that is less than what is expected and the PossDupFlag (43) is not set to "Y", the server will send a Logout message and terminate the FIX connection. The Logout message will contain the next expected sequence number.

A FIX session may not continue to the next trading day. The server will initialise its sequence numbers at the start of each trading day. The client is expected to employ the same logic.

4.2.2 Heartbeats

The client and server will use the Heartbeat message to exercise the communication line during periods of inactivity and to verify that the interfaces at each end are available. The heartbeat interval will be the HeartBtInt (108) specified in the client's Logon message,

The server will send a Heartbeat message anytime it has not transmitted a message for the heartbeat interval. The client is expected to employ the same logic.

If the server detects inactivity for a period longer than the HeartBtInt (108) specified in the client's Logon message, it will send a Test Request message to force a Heartbeat message from the client. The server will send a Logout message and break the TCP/IP connection with the client. The client is expected to employ similar logic if inactivity is detected on the part of the server.

4.2.3 Increasing Expected Sequence Number

The client or server may use the Sequence Reset message in Gap Fill mode if it wishes to increase the expected incoming sequence number of the other party.

The client or server may also use the Sequence Reset message in Sequence Reset mode if it wishes to increase the expected incoming sequence number of the other party. The Sequence Reset mode should only be used to recover from an emergency situation. It should not be relied upon as a regular practice.

4.3 Terminating a FIX connection

The client is expected to terminate each FIX connection at the end of each trading day before the server shuts down. The client will terminate a connection by sending the Logout message. The server will respond with a Logout message to confirm the termination. The client will then break the TCP/IP connection with the server.

All open TCP/IP connections will be terminated by the server when it shuts down (no Logout message will be sent). Under exceptional circumstances the server may initiate the termination of a connection during the trading day by sending the Logout message.

If, during the exchange of Logout messages, the client or server detects a sequence gap, it should send a Resend Request.

4.4 Re-establishing a FIX session

If a FIX connection is terminated during the trading day it may be re-established via an exchange of Logon messages. Once the FIX session is re-established, the message sequence numbers will continue from the last message successfully transmitted prior to the termination.

4.4.1 Resetting Sequence Numbers: Starting a new FIX session

4.4.1.1 Reset initiated by the client

If the client requires both parties to initialise (i.e. reset to 1) sequence numbers, it may use the ResetSeqNumFlag (141) field of the Logon message. The server will respond with a Logon message with the ResetSeqNumFlag (141) field set to "Y" to confirm the initialisation of sequence numbers.

A client may also manually inform the service desk that it would like the server to initialise its sequence numbers prior to the client's next login attempt.

These features are intended to help a client manage an emergency situation. Initializing sequence numbers on a re-login should not be relied upon as a regular practice.

4.4.1.2 Reset initiated by the server

Millennium Exchange has been designed with fault tolerance and disaster recovery technology that should ensure that the server retains its incoming and outgoing message sequence numbers for each client in the unlikely event of a process or site outage.

However, in case the sequence numbers needs to be reset, clients are required to support a manual request by the Exchange to initialise sequence numbers prior to the next login attempt.

5.0 Recovery

5.1 Resend Requests

The client may use the Resend Request message to recover any lost messages. As outlined in the FIX protocol, this message may be used in one of three modes:

- i) To request a single message. The BeginSeqNo (7) and EndSeqNo (16) should be the same.
- ii) To request a specific range of messages. The BeginSeqNo (7) should be the first message of the range and the EndSeqNo (16) should be the last of the range.
- iii) To request all messages after a particular message. The BeginSeqNo (7) should be the sequence number immediately after that of the last processed message and the EndSeqNo (16) should be zero (0).

5.2 Possible duplicates

The server handles possible duplicates according to the FIX protocol. The client and server will use the PossDupFlag (43) field to indicate that a message may have been previously transmitted with the same MsgSeqNum (34).

5.3 Possible resends

The server may, in the circumstances outlined in Sections 5.4 and 5.5, use the PossResend (97) field to indicate that a Trade Capture Report may have already been sent under a different MsgSeqNum (34). The client should validate the TradeReportID (571) of such a message against that of previous Trade Capture Reports received from the server during the current trading day.

If a Trade Capture Report with the same TradeReportID (571) had been processed, the resent Trade Capture Report should be ignored. If the same TradeReportID (571) had not been processed, the message should be processed.

The server does not handle possible resends for client-initiated messages and ignores the value in the PossResend (97) field of such messages.

5.4 Transmission of missed messages

The Trade Capture Reports generated during a period when a client is disconnected from the server will be sent to the client when it next reconnects. In the unlikely event the disconnection was due to an outage of the server, all such messages will include a PossResend (97) of "Y".

5.4.1 Application sequencing and recovery

The server supports the application sequencing and recovery features introduced in Service Pack 2 for FIX 5.0. A client may use the Application Message Request to recover missed trades in scenarios such as the following:

- (i) Trades are missed due to a late connection or disconnection during the day.
- (ii) Session level recovery via a Resend Request is unavailable due to a sequence number reset initiated by the client or server.
- (iii) All or some of the trades transmitted by the server during the current day are lost due to a failure at the client site.

5.4.1.1 Application sequencing by server

The matching system consists of a series of parallel partitions each of which provide the matching service for an exclusive set of securities.

Each Trade Capture Report transmitted by the server will include the identity of the matching partition that generated the trade and the partition's internal sequence number for the trade in the fields ApplID (1180) and ApplSeqNum (1181) respectively. As the matching partitions operate in parallel and employ the same application sequencing scheme, an ApplSeqNum (1181) is only unique per ApplID (1180). The ApplSeqNum of each ApplID will be initialised to "1" at the start of each trading day.

As a client will only receive a subset of the trades executed by each matching partition, the field ApplLastSeqNum (1350) is also included in each Trade Capture Report. This field will contain the ApplSeqNum of the last Trade Capture Report or Trade Capture Report Ack sent to the client. This will enable clients to distinguish deliberate sequence gaps from application errors by comparing the value of ApplLastSeqNum (1350) to the ApplSeqNum (1181) of the last received Trade Capture Report from the same ApplID (1180).

AppLastSeqNum (1350) is not included in the first Trade Capture Report transmitted to a client. It is also important to note that since the TCR Ack does not contain ApplSeqNum (1181) field, if the last received message was a TCR ack, then ApplLastSeqNum (1350) will show a gap when there was none. A Trade Capture Report sent as a response to Trade Capture Report Request will not contain ApplLastSeqNum (1350).

The Exchange may change the number of partitions and the securities each serves with due notice to clients.

5.4.1.2 Detecting an application sequence gap

A client can detect a dropped message by comparing the ApplLastSeqNum (1350) of each new Trade Capture Report against the ApplSeqNum (1181) of the last trade received from the same ApplID (1180).

In the case of a reconnection, the client can either wait for the next Trade Capture Report to determine whether trades have been missed or issue a request for the most current ApplSeqNum for each ApplID.

Requesting the Latest ApplSeqNum

The client may use the Application Message Request to request the latest ApplSeqNum for one or more ApplIDs. The ApplReqType (1347) of the message should be Request for Last ApplLastSeqNum (2).

Response to Request for Latest ApplSeqNum

The server will respond to the Application Message Request with an Application Message Request Ack. If the request was unsuccessful for a particular ApplID, the reason will be specified in the field ApplResponseError (1354). In the case of a successful request, the ApplSeqNum of the last trade generated for the client by each ApplID will be specified in the field RefApplLastSeqNum (1357).

5.4.1.3 Requesting retransmission of missed trades

The client may use the Application Message Request to recover any lost trades. The ApplReqType (1347) of the message should be Retransmission of Application Messages (0). The message may be used in one of four modes:

- (i) To request a single trade. The ApplBegSeqNum (1182) and ApplEndSeqNum (1183) should be the same.

To request a specific range of trades. The ApplBegSeqNum (1182) should be the first trade of the range and the ApplEndSeqNum (1183) should be the last of the range.

To request all trades after a particular trade. The ApplBegSeqNum (1182) should be the application sequence number immediately after that of the last processed trade and the ApplEndSeqNum (1183) should be zero (0).

To request all trades for the day. The ApplBegSeqNum (1182) should be one (1) and the ApplEndSeqNum (1183) should be zero (0).

In all cases, the client should identify the matching partition to which the request relates via the field RefApplID (1355).

5.4.1.4 Response to a trade Retransmission Request

The server will respond to the Application Message Request with an Application Message Request Ack to indicate whether the retransmission request is successful or not. If the request was unsuccessful for a particular ApplID, the reason will be specified in the field ApplResponseError (1354).

In the case of a successful retransmission request, the server will resend the requested Trade Capture Reports and Trade Capture Report Acks immediately after the Application Message Request Ack. Each Trade Capture Report and Trade Capture Report Ack will include an ApplResendFlag (1352) of "Y" to indicate that it is resent in response to an Application Message Request. The resent messages will not include the field ApplLastSeqNum (1350). A Trade Capture Report ACK will not be sent if the initial Trade Capture Report is rejected at Gateway level.

5.4.1.5 Disconnection prior to completion of Retransmission

If the FIX connection is terminated prior to the completion of the Trade Capture Report retransmission, the client should submit a new Application Message Request once it reconnects to the server.

5.5 Resending previous trade capture reports

If the client's application does not support the application sequencing and recovery features of FIX, it may manually inform the service desk that it would like the server to resend all of the Trade Capture Reports generated during the current trading day that it is eligible to receive when it next logs in. All resent Trade Capture Reports will include a PossResend (97) of "Y".

This feature is intended to help a client manage an emergency situation and it should not be relied upon as a regular practice.

6.0 Supported message types

This section lists all administrative and application message types supported by the server. Any message not included in this section will be ignored by the server.

6.1 Administrative Messages

All administrative messages may be initiated by either the client or the server.

Message	MsgType	Usage
Heartbeat	0	Allows the client and server to exercise the communication line during periods of inactivity and verify that the interfaces at each end are available.
Logon	A	Allows the client and server to establish a FIX session.
Test Request	1	Allows the client or server to request a response from the other party if inactivity is detected.
Resend Request	2	Allows for the recovery of messages lost during a malfunction of the communications layers.
Reject	3	Used to reject a message that does not comply with FIXT.
Sequence Reset	4	Allows the client or server to increase the expected incoming sequence number of the other party.
Logout	5	Allows the client and server to terminate a FIX session.

6.2 Application Messages (Client-Initiated)³

Message	MsgType	Usage
Application Message Request	BW	Allows the client to request one of the following: (i) Retransmission of missed trades (ii) Latest ApplSeqNum of each ApplID
Trade Capture Report	AE	Allows the client to report an off book trade and manipulate it or to cancel an on book trade.
Trade Capture Report Request	AD	Allows the client to query/request for a set of Trade Capture Reports from the server

6.3 Application Messages (Server-Initiated)

Message	MsgType	Usage
Trade Capture Report	AE	Indicates one of the following: (i) Trade (ii) Trade bust (iii) Trade correction
Application Message Request Ack	BX	Indicates whether a request to retransmit trades or for the latest ApplSeqNum is successful or not.
Trade Capture Report Ack	AR	Acknowledges the receipt of a Trade Capture Report message from the client.
Trade Capture Report Request Ack	AQ	Acknowledges the receipt of a Trade Capture Report Request message from the client.

6.4 Application Messages: Other (Server-Initiated)

Message	MsgType	Usage
Business Message Reject	J	(a) Indicates that an application message sent by the client could not be processed.

³ The Post Trade Gateway currently does not explicitly validate the lengths of the client submitted fields (e.g. Firm Trade ID). Hence if more characters are specified they will be truncated based on the maximum length that can be supported at the Data Base level. Therefore it is advisable that the clients should adhere to that maximum length (50), even though there are no explicit gateway level validations.

6.5 Variations from the FIX Protocol

The server conforms to the FIX protocol except as follows:

- (i) The TradeRequestResult (749) field of the Trade Capture Report Request Ack includes custom values.
- (ii) The Trade Capture Report Request includes the fields MatchType (574) and Account (1).
- (iii) The TrdSubType (829) field of the Trade Capture Report contains custom values.
- (iv) The Trade Capture Report message includes AccountType(581) field.
- (v) The Trade Capture Report message includes custom fields Original Price (20100), Clearing Type (20110) and Novated Indicator (20111).

7.0 Message formats

This section provides details on the header and trailer, the seven administrative messages and seven application messages utilised by the post trade gateway. Client-initiated messages not included in this section are rejected by the server via a Reject or Business Message Reject. All fields are encoded in using printable ASCII.

If an unexpected tag is sent along with any of the Administrative or Application messages, then the system will no longer ignore the unexpected tag and process the rest of the message. Any unexpected tags will now cause the message to be completely rejected. Previously, unexpected tags were ignored and the messages were processed.

7.1 Message header and trailer

7.1.1 Message Header

Tag	Field Name	Req	Description																														
8	BeginString	Y	FIXT.1.1																														
9	BodyLength	Y	Number of characters after this field up to and including the delimiter immediately preceding the CheckSum.																														
35	MsgType	Y	<p>The message type.</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Heartbeat</td> </tr> <tr> <td>1</td> <td>Test Request</td> </tr> <tr> <td>2</td> <td>Resend Request</td> </tr> <tr> <td>3</td> <td>Reject</td> </tr> <tr> <td>4</td> <td>Sequence Reset</td> </tr> <tr> <td>5</td> <td>Logout</td> </tr> <tr> <td>A</td> <td>Logon</td> </tr> <tr> <td>AD</td> <td>Trade Capture Report Request</td> </tr> <tr> <td>AE</td> <td>Trade Capture Report</td> </tr> <tr> <td>AQ</td> <td>Trade Capture Report Request Ack</td> </tr> <tr> <td>AR</td> <td>Trade Capture Report Ack</td> </tr> <tr> <td>BW</td> <td>Application Message Request</td> </tr> <tr> <td>BX</td> <td>Application Message Request Ack</td> </tr> <tr> <td>j</td> <td>Business Message Reject</td> </tr> </tbody> </table>	Value	Meaning	0	Heartbeat	1	Test Request	2	Resend Request	3	Reject	4	Sequence Reset	5	Logout	A	Logon	AD	Trade Capture Report Request	AE	Trade Capture Report	AQ	Trade Capture Report Request Ack	AR	Trade Capture Report Ack	BW	Application Message Request	BX	Application Message Request Ack	j	Business Message Reject
Value	Meaning																																
0	Heartbeat																																
1	Test Request																																
2	Resend Request																																
3	Reject																																
4	Sequence Reset																																
5	Logout																																
A	Logon																																
AD	Trade Capture Report Request																																
AE	Trade Capture Report																																
AQ	Trade Capture Report Request Ack																																
AR	Trade Capture Report Ack																																
BW	Application Message Request																																
BX	Application Message Request Ack																																
j	Business Message Reject																																
49	SenderCompID	Y	CompID of the party sending the message.																														
56	TargetCompID	Y	CompID of the party the message is sent to.																														
34	MsgSeqNum	Y	The sequence number of the message.																														
43	PossDupFlag	N	<p>Whether the message was previously transmitted under the same MsgSeqNum (34). Absence of this field is interpreted as Original Transmission (N).</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>Possible Duplicate</td> </tr> <tr> <td>N</td> <td>Original Transmission</td> </tr> </tbody> </table>	Value	Meaning	Y	Possible Duplicate	N	Original Transmission																								
Value	Meaning																																
Y	Possible Duplicate																																
N	Original Transmission																																

97	PossResend	N	<p>Whether the message was previously transmitted under a different MsgSeqNum (34). Absence of this field is interpreted as Original Transmission (N).</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>Possible Resend</td> </tr> <tr> <td>N</td> <td>Original Transmission</td> </tr> </tbody> </table>	Value	Meaning	Y	Possible Resend	N	Original Transmission
Value	Meaning								
Y	Possible Resend								
N	Original Transmission								
52	SendingTime	N	<p>Time the message was transmitted. Not required for incoming messages sent by the clients (even if sent by a client, no validation will be done). Required for outgoing messages sent by the server.</p>						
115	OnBehalfOfCompID	N	<p>The ID of the party which the message is on behalf of; will only be used in client initiated messages.</p>						
128	DeliverToCompID	N	<p>The value specified in the OnBehalfOfCompID(115) field will be stamped; will only be used in server initiated messages.</p>						
122	OrigSendingTime	N	<p>Time the message was originally transmitted. If the original time is not available, this should be the same value as SendingTime (52). Required if PossDupFlag (43) is Possible Duplicate (Y).</p>						
1128	ApplVerID	N	<p>Version of FIX used in the message. Required if the message is generated by the server.</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>9</td> <td>FIX50SP2</td> </tr> </tbody> </table>	Value	Meaning	9	FIX50SP2		
Value	Meaning								
9	FIX50SP2								

7.1.2 Message Trailer

Tag	Field Name	Req	Description
10	Checksum	Y	

7.2 Administrative messages

7.2.1 Logon

Tag	Field Name	Req	Description								
Standard Header											
35	MsgType	Y	A = Logon								
Message Body											
98	EncryptMethod	Y	The method of encryption. <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>None</td> </tr> </tbody> </table>	Value	Meaning	0	None				
Value	Meaning										
0	None										
108	HeartBtInt	Y	Indicates the heartbeat interval in seconds.								
141	ResetSeqNum Flag	N	Indicates whether the client and server should reset sequence numbers. Absence of this field is interpreted as Do Not Reset Sequence Numbers (N). <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>Reset Sequence Numbers</td> </tr> <tr> <td>N</td> <td>Do Not Reset Sequence Numbers</td> </tr> </tbody> </table>	Value	Meaning	Y	Reset Sequence Numbers	N	Do Not Reset Sequence Numbers		
Value	Meaning										
Y	Reset Sequence Numbers										
N	Do Not Reset Sequence Numbers										
554	Password	N	The password assigned to the CompID. Required if the message is generated by the client.								
925	NewPassword	N	The new password for the CompID.								
1409	SessionStatus	N	Status of the FIX session or the request to change the password. Required if the message is generated by the server. <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Session Active</td> </tr> <tr> <td>2</td> <td>Password Due to Expire</td> </tr> <tr> <td>3</td> <td>New Password Does Not Comply with Policy</td> </tr> </tbody> </table>	Value	Meaning	0	Session Active	2	Password Due to Expire	3	New Password Does Not Comply with Policy
Value	Meaning										
0	Session Active										
2	Password Due to Expire										
3	New Password Does Not Comply with Policy										
1137	DefaultAppVerID	Y	Default version of FIX messages used in this session. <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>9</td> <td>FIX50SP2</td> </tr> </tbody> </table>	Value	Meaning	9	FIX50SP2				
Value	Meaning										
9	FIX50SP2										
Standard Trailer											

7.2.2 Logout

Tag	Field Name	Req	Description																
Standard Header																			
35	MsgType	Y	5 = Logout																
Message Body																			
1409	SessionStatus	N	Status of the FIX session. Required if the message is generated by the server.																
			<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>Session logout complete</td> </tr> <tr> <td>6</td> <td>Account locked</td> </tr> <tr> <td>7</td> <td>Logons are not allowed at this time</td> </tr> <tr> <td>8</td> <td>Password expired</td> </tr> <tr> <td>100</td> <td>Other</td> </tr> <tr> <td>101</td> <td>Logout due to session level failure</td> </tr> <tr> <td>102</td> <td>Logout by Service Desk</td> </tr> </tbody> </table>	Value	Meaning	4	Session logout complete	6	Account locked	7	Logons are not allowed at this time	8	Password expired	100	Other	101	Logout due to session level failure	102	Logout by Service Desk
			Value	Meaning															
			4	Session logout complete															
			6	Account locked															
			7	Logons are not allowed at this time															
			8	Password expired															
			100	Other															
101	Logout due to session level failure																		
102	Logout by Service Desk																		
58	Text	N	The field will contain the next expected sequence number if the server terminated the connection after receiving a sequence number that was less than what was expected. In other cases the field will contain the reason for the logout.																
Standard Trailer																			

7.2.3 Heartbeat

Tag	Field Name	Req	Description
Standard Header			
35	MsgType	Y	0 = Heartbeat
Message Body			
112	TestReqID	N	Required if the heartbeat is a response to a Test Request. The value in this field should echo the TestReqID (112) received in the Test Request.
Standard Trailer			

7.2.4 Test Request

Tag	Field Name	Req	Description
Standard Header			
35	MsgType	Y	1 = Test Request
Message Body			
112	TestReqID	Y	Identifier for the request.
Standard Trailer			

7.2.5 Resend Request

Tag	Field Name	Req	Description
Standard Header			
35	MsgType	Y	2 = Resend Request
Message Body			
7	BeginSeqNo	Y	Sequence number of first message in range.
16	EndSeqNo	Y	Sequence number of last message in range.
Standard Trailer			

7.2.6 Reject

Tag	Field Name	Req	Description
Standard Header			
35	MsgType	Y	3 = Reject
Message Body			
45	RefSeqNum	Y	MsgSeqNum (34) of the rejected message.
371	RefTagID	N	If a message is rejected due to an issue with a particular field its tag number will be indicated.
372	RefMsgType	N	MsgType (35) of the rejected message.
373	SessionRejectReason	N	Code specifying the reason for the reject. Please refer to Section 8 for a list of reject codes.
58	Text	N	Text specifying the SessionRejectReason(373)
Standard Trailer			

7.2.7 Sequence Reset

Tag	Field Name	Req	Description						
Standard Header									
35	MsgType	Y	4 = Sequence Reset						
Message Body									
36	NewSeqNo	Y	Sequence number of the next message to be transmitted.						
123	GapFillFlag	N	The mode in which the message is being used. Absence of this field is interpreted as Sequence Reset (N). <table border="1" data-bbox="531 786 1093 929"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>Gap Fill</td> </tr> <tr> <td>N</td> <td>Sequence Reset</td> </tr> </tbody> </table>	Value	Meaning	Y	Gap Fill	N	Sequence Reset
Value	Meaning								
Y	Gap Fill								
N	Sequence Reset								
Standard Trailer									

7.3 Application messages

7.3.1 Trade Capture Report – Client Initiated

Tag	Field Name	Req	Description
Standard Header			
35	MsgType	Y	AE = Trade Capture Report
Message Body			
571	TradeReportID	N	Message identifier assigned by the client. Maximum of 10 characters.
1041	FirmTradeID	N	Identifier assigned to the trade by the counterparties. Required if an off-book trade is being submitted for registration. Required if TrdType (828) is Off-Book Trade (54) and Special Priced (30). This field is not validated on pre-release and cancellation requests. Maximum of 50 characters.
1003	TradeID	N	Server-assigned identifier of the trade. Required for a pre-release or cancel request. Required if a request to register, or pre-release or cancel a trade is being accepted, or declined or cancelled. Maximum of 10 characters.

1123	TradeHandlingInstr	Y	Model under which the trade, or pre-release request or cancel request should be confirmed.	
			Value	Meaning
			1	Two-Party Report
856	TradeReportType	Y	Type of trade report.	
			Value	Meaning
			0	Submit
			6	Trade Report Cancel
487	TradeReportTrans Type	Y	Type of request.	
			Value	Meaning
			0	New
			3	Release
1328	RejectText	N	Reason request is declined by counterparty.	
828	TrdType	Y	Type of the trade.	
			Value	Meaning
			0	Regular Trade
			30	Special Priced
			54	Off-Book Trade
		The field is required when an off book trade is submitted but not when submitting a Pre-Release request or off-book trade cancellation request.		

829	TrdSubType	N	<p>Type of off-book trade. Required if an off-book trade is being submitted for registration.</p> <p>Users will be validated as to what Order Capacities (528) they can submit with each off book trade type for a particular instrument or group of instruments</p> <p>.</p> <table border="1" data-bbox="582 577 1209 1906"> <thead> <tr> <th data-bbox="582 577 699 622"></th> <th data-bbox="699 577 1209 622">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="582 622 699 674">17</td> <td data-bbox="699 622 1209 674">LC⁴ – Late correction - XLON</td> </tr> <tr> <td data-bbox="582 674 699 725">20</td> <td data-bbox="699 674 1209 725">NM – Not to mark - XLON</td> </tr> <tr> <td data-bbox="582 725 699 777">24</td> <td data-bbox="699 725 1209 777">PC⁵ – Previous Day Contra</td> </tr> <tr> <td data-bbox="582 777 699 853">1000</td> <td data-bbox="699 777 1209 853">O – Ordinary trade immediate publication-XLON</td> </tr> <tr> <td data-bbox="582 853 699 929">1004</td> <td data-bbox="699 853 1209 929">IF - Inter Fund Transfer delayed publication-XOFF</td> </tr> <tr> <td data-bbox="582 929 699 1005">1005</td> <td data-bbox="699 929 1209 1005">NK - Negotiated Trade delayed publication XLON</td> </tr> <tr> <td data-bbox="582 1005 699 1081">1006</td> <td data-bbox="699 1005 1209 1081">NT - Negotiated Trade immediate publication-XLON</td> </tr> <tr> <td data-bbox="582 1081 699 1133">1007</td> <td data-bbox="699 1081 1209 1133">OC – OTC Late Correction - XOFF</td> </tr> <tr> <td data-bbox="582 1133 699 1209">1008</td> <td data-bbox="699 1133 1209 1209">OK – Ordinary Trade delayed publication-XLON</td> </tr> <tr> <td data-bbox="582 1209 699 1285">1009</td> <td data-bbox="699 1209 1209 1285">OTC – Ordinary Trade Immediate publication-XOFF</td> </tr> <tr> <td data-bbox="582 1285 699 1337">1010</td> <td data-bbox="699 1285 1209 1337">SC - SI Late Correction</td> </tr> <tr> <td data-bbox="582 1337 699 1388">1011</td> <td data-bbox="699 1337 1209 1388">SI - SI Trade immediate publication</td> </tr> <tr> <td data-bbox="582 1388 699 1440">1012</td> <td data-bbox="699 1388 1209 1440">SK - SI Trade delayed publication</td> </tr> <tr> <td data-bbox="582 1440 699 1516">1013</td> <td data-bbox="699 1440 1209 1516">TK - OTC Trade delayed publication-XOFF</td> </tr> <tr> <td data-bbox="582 1516 699 1568">2001</td> <td data-bbox="699 1516 1209 1568">BT - OTC MTF TBA 1</td> </tr> <tr> <td data-bbox="582 1568 699 1644">3001</td> <td data-bbox="699 1568 1209 1644">BK – OTC trade – delayed publication MTF TBA 1</td> </tr> <tr> <td data-bbox="582 1644 699 1720">1018</td> <td data-bbox="699 1644 1209 1720">BF – Inter fund cross-delayed publication requested MTF TBA 1</td> </tr> <tr> <td data-bbox="582 1720 699 1796">1019</td> <td data-bbox="699 1720 1209 1796">BC – Cancellation of OTC trade after date of publication MTF TBA 1</td> </tr> <tr> <td data-bbox="582 1796 699 1848">1020</td> <td data-bbox="699 1796 1209 1848">QT - OTC MTF TBA 2</td> </tr> <tr> <td data-bbox="582 1848 699 1924">1021</td> <td data-bbox="699 1848 1209 1924">QK – OTC trade – delayed publication MTF TBA 2</td> </tr> <tr> <td data-bbox="582 1924 699 1998">1022</td> <td data-bbox="699 1924 1209 1998">QF – Inter fund cross-delayed publication requested MTF TBA 2</td> </tr> </tbody> </table>		Description	17	LC ⁴ – Late correction - XLON	20	NM – Not to mark - XLON	24	PC ⁵ – Previous Day Contra	1000	O – Ordinary trade immediate publication-XLON	1004	IF - Inter Fund Transfer delayed publication-XOFF	1005	NK - Negotiated Trade delayed publication XLON	1006	NT - Negotiated Trade immediate publication-XLON	1007	OC – OTC Late Correction - XOFF	1008	OK – Ordinary Trade delayed publication-XLON	1009	OTC – Ordinary Trade Immediate publication-XOFF	1010	SC - SI Late Correction	1011	SI - SI Trade immediate publication	1012	SK - SI Trade delayed publication	1013	TK - OTC Trade delayed publication-XOFF	2001	BT - OTC MTF TBA 1	3001	BK – OTC trade – delayed publication MTF TBA 1	1018	BF – Inter fund cross-delayed publication requested MTF TBA 1	1019	BC – Cancellation of OTC trade after date of publication MTF TBA 1	1020	QT - OTC MTF TBA 2	1021	QK – OTC trade – delayed publication MTF TBA 2	1022	QF – Inter fund cross-delayed publication requested MTF TBA 2
	Description																																														
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1010	SC - SI Late Correction																																														
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1022	QF – Inter fund cross-delayed publication requested MTF TBA 2																																														
<p>⁴ ⁴ Not to be used when trade date is the same as submission date</p>																																															

829 contd.	TrdSubType contd.	N	1023	QC – Cancellation of OTC trade after date of publication MTF TBA 2
			1024	MT - OTC MTF TBA 3
			1025	MK – OTC trade – delayed publication MTF TBA 3
			1026	MF – Inter fund cross-delayed publication requested MTF TBA 3
			1027	MC – Cancellation of OTC trade after date of publication MTF TBA 3
			1028	CT - OTC MTF TBA 4
			1029	CK – OTC trade – delayed publication MTF TBA 4
			2002	CF – Inter fund cross-delayed publication requested MTF TBA 4
			1031	CC – Cancellation of OTC trade after date of publication MTF TBA 4
			1032	GC – Delayed Publication Late Correction XLON
			1033	NC - No to Mark Late Correction XLON
			1029	CK – OTC trade – delayed publication MTF TBA 4
			2002	CF – Inter fund cross-delayed publication requested MTF TBA 4
			1033	NC - No to Mark Late Correction XLON
60	TransactTime	N	<p>Date and time the trade was executed on the participant's system. Required if an off-book trade is being submitted for registration. This field should be mapped to the Agreed Time of the internal TCR. If the message is for a pre-release or a cancel request, time the message was created on the participant system.</p> <p>For an off/on book trade cancellations or off book pre-release trades, the system will not validate the value.</p>	
32	LastQty	N	<p>Traded quantity. Required if an off-book trade is being submitted for registration. The system will not validate the LastQty submitted for an on/off book cancellation or an off book cancellation with the original values.</p> <p>It is not possible to submit trades with zero or negative value for LastQty(32). It is possible to submit sizes which do not conform to the lot size of the instrument and consisting of fractional values. This field should not contain more than 14 characters, excluding the decimal point and should not use more than 8 decimal places when used.</p>	

31	LastPx	N	<p>Traded price. Required if an off-book trade is being submitted for registration. The system will not validate the LastPx submitted for an on/off book cancellation or an off book cancellation with the original values.</p> <p>It is not possible to submit trades with zero or negative value for LastPx(31). This field should not contain more than 14 characters, excluding the decimal point and should not use more than 8 decimal places when used.</p>								
64	SettlDate	N	Date on which the trade will settle. It is not possible for an off book trade to be submitted without a settlement date.								
48	SecurityID	Y	Unique Instrument ID assigned to the instrument in the Millennium Exchange.								
22	SecurityIDSource	Y	<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>Exchange Symbol</td> </tr> </tbody> </table>	Value	Meaning	8	Exchange Symbol				
Value	Meaning										
8	Exchange Symbol										
20100	OriginalPrice	N	Used to specify the price of the off book trade if it was carried out in a currency other than the trading currency of the instrument. The value specified is the value in SettlCurrency(120). This field should not contain more than 14 characters, excluding the decimal point and should not use more than 8 decimal places when used.								
120	SettlCurrency	N	<p>Original executing currency of the off book trade, if it is different to the instrument's trading currency. Valid values are iso-4217 currency list.</p> <p>These will be validated against pre-configured values in the system.</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>GBX</td> <td>GB Pennies</td> </tr> <tr> <td>ZAC</td> <td>South African Cents (1/100th of a Rand)</td> </tr> <tr> <td>ITL</td> <td>Italian Lira</td> </tr> </tbody> </table>	Value	Meaning	GBX	GB Pennies	ZAC	South African Cents (1/100 th of a Rand)	ITL	Italian Lira
Value	Meaning										
GBX	GB Pennies										
ZAC	South African Cents (1/100 th of a Rand)										
ITL	Italian Lira										
552	NoSides	Y	Number of sides which should always be "2".								
➔	54	Side	<p>Side of the pre-negotiated trade.</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Buy</td> </tr> <tr> <td>2</td> <td>Sell</td> </tr> </tbody> </table>	Value	Meaning	1	Buy	2	Sell		
Value	Meaning										
1	Buy										
2	Sell										
➔	453	NoPartyIDs	Y	Number of party identifiers.							
➔	➔	448 PartyID	Y	Identifier of the party.							

➔	➔	447 PartyID Source	Y	<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>D</td> <td>Proprietary/Custom Code</td> </tr> </tbody> </table>	Value	Meaning	D	Proprietary/Custom Code								
Value	Meaning															
D	Proprietary/Custom Code															
➔	➔	452 Party Role	Y	<p>Role of the specified PartyID (448).</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Executing Firm</td> </tr> <tr> <td>17</td> <td>Contra Firm</td> </tr> <tr> <td>12</td> <td>Trader ID</td> </tr> <tr> <td>24</td> <td>Clearing Organisation</td> </tr> <tr> <td>76</td> <td>Trader Group</td> </tr> </tbody> </table> <p>For Off Book trades, these Trader Group (76) is required to be specified in the party block that contains Executing Firm (1) as a Party Role (452). It can be optionally present in the party block that contains Counterparty Firm (17) as a Party Role (452). For On Book trade cancellations, the party block should contain Executing Firm(1) and Trader Group (76).</p>	Value	Meaning	1	Executing Firm	17	Contra Firm	12	Trader ID	24	Clearing Organisation	76	Trader Group
Value	Meaning															
1	Executing Firm															
17	Contra Firm															
12	Trader ID															
24	Clearing Organisation															
76	Trader Group															
➔	528	OrderCapacity	N	<p>Capacity of the firm that executed the off book trade. Required if TradeHandlingInstr (1123) is Two-Party Report (1) or One-Party Report for Pass Through (3). For Off Book trades, the field is required for the side block that contains Executing Firm (1) Party Role (452). It should be omitted from the side block that contains Counterparty Firm (17) Party Role (452)</p> <p>If this is not specified for side block that contains the Executing Firm(1) PartyRole (452) when submitting off book trades the trade will be rejected with reject code '7806' and reason 'Capacity not specified for Executing Firm'</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Agency</td> </tr> <tr> <td>P</td> <td>Principal</td> </tr> <tr> <td>R</td> <td>Riskless Principal⁶</td> </tr> </tbody> </table>	Value	Meaning	A	Agency	P	Principal	R	Riskless Principal ⁶				
Value	Meaning															
A	Agency															
P	Principal															
R	Riskless Principal ⁶															

⁶ For submission of off-book trade reports, Capacity (R), Riskless Principal is not permitted as a rule by the Exchange.

➔	581	AccountType	N	<p>Clearing account type.</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Client</td> </tr> <tr> <td>3</td> <td>House</td> </tr> </tbody> </table> <p>For Off Book trades, the field can be optionally set for the side block that contains Executing Firm (1) Party Role (452). It should be omitted from the side block that contains Counterparty Firm (17) Party Role (452)</p> <p>Tag 581 (AccountType) will be required for the sides containing both the Executing Firm and CounterParty firm if the trade is reported by a third party.</p>	Value	Meaning	1	Client	3	House
Value	Meaning									
1	Client									
3	House									
➔	1	Account	N	Client reference information. A maximum of 10 characters.						
Standard Trailer										

7.3.2 Trade Capture Report – Server Initiated

Tag	Field Name	Req	Description						
Standard Header									
35	MsgType	Y	AE = Trade Capture Report						
Message Body									
1180	ApplID	Y	Identifier of the partition.						
1181	ApplSeqNum	Y	Partition's sequence number for trade.						
1350	ApplLastSeqNum	N	ApplSeqNum of last trade generated for client. Required if ApplResendFlag (1352) is "N" and TradeRequestID (568) is not present. Tag 1350 will not be populated on the first TCR sent to the client (since zero is not a valid value).						
1352	ApplResendFlag	N	<p>Whether the message is sent in response to an Application Request. Absence of this field is interpreted as Original Transmission (N).</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>Response to Application Message Request</td> </tr> <tr> <td>N</td> <td>Original Transmission</td> </tr> </tbody> </table>	Value	Meaning	Y	Response to Application Message Request	N	Original Transmission
Value	Meaning								
Y	Response to Application Message Request								
N	Original Transmission								
568	TradeRequestID	N	Identifier of the Trade Capture Report the message is sent in response to.						

912	LastRptRequested	N	Indicates the last message sent in response to a Trade Capture Report Request.								
			<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>Last Message</td> </tr> </tbody> </table>	Value	Meaning	Y	Last Message				
			Value	Meaning							
Y	Last Message										
571	TradeReportID	Y	Identifier of the message.								
1003	TradeID	Y	Identifier of the trade. If a confirmed off-book trade is being cancelled or is being pre-released or an on book trade is being cancelled, then the TradeID assigned to the particular trade by the system needs to be referred in this field. Trade ID will be a 36 base encoded value in ASCII format.								
820	TradeLinkID	Y	Identifier of the transaction in which the trade was executed.								
1041	FirmTradeID	N	Identifier assigned to an off-book trade by the counterparties. Required if TrdType (828) is Off-Book Trade (54) or Special Priced (30).								
572	TradeReportRefID	N	Reference to trade being cancelled Required if ExecType (150) is Trade Cancel (H)								
1123	TradeHandlingInstr	Y	Handling instructions to client.								
			<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Trade Confirmation</td> </tr> <tr> <td>1</td> <td>Two party report (i.e. Single party submission)</td> </tr> </tbody> </table>	Value	Meaning	0	Trade Confirmation	1	Two party report (i.e. Single party submission)		
			Value	Meaning							
0	Trade Confirmation										
1	Two party report (i.e. Single party submission)										
The system will validate the TradeHandlingInstr sent for an on book trade cancellation request.											
856	TradeReportType	Y	Type of trade report.								
			<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Submit</td> </tr> <tr> <td>6</td> <td>Trade Report Cancel</td> </tr> <tr> <td>7</td> <td>Trade Break</td> </tr> </tbody> </table>	Value	Meaning	0	Submit	6	Trade Report Cancel	7	Trade Break
			Value	Meaning							
			0	Submit							
6	Trade Report Cancel										
7	Trade Break										

150	ExecType	Y	<p>Type of execution being reported. This field is mandatory for any on book trade published by the system and any trade, cancellation or pre-release request confirmed by the server for off book trades.</p> <table border="1" data-bbox="788 528 1300 674"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>F</td> <td>Trade</td> </tr> <tr> <td>H</td> <td>Trade Cancel</td> </tr> </tbody> </table>	Value	Meaning	F	Trade	H	Trade Cancel				
Value	Meaning												
F	Trade												
H	Trade Cancel												
20110	Clearing Type	Y	<p>Defines whether the particular instrument is cleared or not. Required for messages published by the system.</p> <p>When a trade is cleared, this should be set to '1' (Cleared).</p> <p>When a trade is not cleared, this should be set to '0' (Not Cleared).</p> <table border="1" data-bbox="788 960 1300 1106"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Not Cleared</td> </tr> <tr> <td>1</td> <td>Cleared</td> </tr> </tbody> </table>	Value	Meaning	0	Not Cleared	1	Cleared				
Value	Meaning												
0	Not Cleared												
1	Cleared												
20111	Novated Indicator	Y	<p>Defines whether the trade needs to be sent to clearing system. Required for messages published by the system.</p> <p>When a trade is internalized, this should be set to '0' (No).</p> <p>When a trade is cleared, this should be set to '1' (Yes).</p> <p>When a trade is not cleared, this should be set to '0' (No).</p> <table border="1" data-bbox="788 1460 1300 1606"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>No</td> </tr> <tr> <td>1</td> <td>Yes</td> </tr> </tbody> </table>	Value	Meaning	0	No	1	Yes				
Value	Meaning												
0	No												
1	Yes												
487	TradeReportTrans Type	Y	<p>Type of transaction being reported.</p> <table border="1" data-bbox="788 1653 1300 1888"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>New</td> </tr> <tr> <td>1</td> <td>Cancel</td> </tr> <tr> <td>2</td> <td>Replace</td> </tr> <tr> <td>3</td> <td>Release</td> </tr> </tbody> </table>	Value	Meaning	0	New	1	Cancel	2	Replace	3	Release
Value	Meaning												
0	New												
1	Cancel												
2	Replace												
3	Release												

573	MatchStatus	Y	Status of the trade.	
			Value	Meaning
			0	Matched
			1	Unmatched
1124	OrigTradeHandling Instr	N	Model under which off-book trade was confirmed. Required if TrdType (828) is Off-Book Trade (54) or Special Priced (30).	
			Value	Meaning
			1	Two-Party Report
			3	One-Party Report for Pass Through
828	TrdType	Y	Type of trade.	
			Value	Meaning
			0	Regular Trade
			30	Special-Priced Trade (Off Book)
			54	Off-Book Trade

829	TrdSubType	N	Type of off-book trade. Conditionally required if TradeType denotes an off-book trade (30 or 54).																																												
			<table border="1"> <thead> <tr> <th data-bbox="788 479 906 517"></th> <th data-bbox="906 479 1303 517">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="788 517 906 566">17</td> <td data-bbox="906 517 1303 566">LC – Late correction - XLON</td> </tr> <tr> <td data-bbox="788 566 906 616">20</td> <td data-bbox="906 566 1303 616">NM – Not to mark - XLON</td> </tr> <tr> <td data-bbox="788 616 906 665">24</td> <td data-bbox="906 616 1303 665">PC – Previous Day Contra</td> </tr> <tr> <td data-bbox="788 665 906 745">1000</td> <td data-bbox="906 665 1303 745">O – Ordinary trade immediate publication-XLON</td> </tr> <tr> <td data-bbox="788 745 906 826">1004</td> <td data-bbox="906 745 1303 826">IF - Inter Fund Transfer delayed publication-XOFF</td> </tr> <tr> <td data-bbox="788 826 906 907">1005</td> <td data-bbox="906 826 1303 907">NK - Negotiated Trade delayed publication XLON</td> </tr> <tr> <td data-bbox="788 907 906 987">1006</td> <td data-bbox="906 907 1303 987">NT - Negotiated Trade immediate publication-XLON</td> </tr> <tr> <td data-bbox="788 987 906 1068">1007</td> <td data-bbox="906 987 1303 1068">OC – OTC Late Correction - XOFF</td> </tr> <tr> <td data-bbox="788 1068 906 1149">1008</td> <td data-bbox="906 1068 1303 1149">OK – Ordinary Trade delayed publication-XLON</td> </tr> <tr> <td data-bbox="788 1149 906 1229">1009</td> <td data-bbox="906 1149 1303 1229">OTC – Ordinary Trade Immediate publication-XOFF</td> </tr> <tr> <td data-bbox="788 1229 906 1279">1010</td> <td data-bbox="906 1229 1303 1279">SC - SI Late Correction</td> </tr> <tr> <td data-bbox="788 1279 906 1359">1011</td> <td data-bbox="906 1279 1303 1359">SI - SI Trade immediate publication</td> </tr> <tr> <td data-bbox="788 1359 906 1440">1012</td> <td data-bbox="906 1359 1303 1440">SK - SI Trade delayed publication</td> </tr> <tr> <td data-bbox="788 1440 906 1520">1013</td> <td data-bbox="906 1440 1303 1520">TK - OTC Trade delayed publication-XOFF</td> </tr> <tr> <td data-bbox="788 1520 906 1570">2001</td> <td data-bbox="906 1520 1303 1570">BT - OTC MTF TBA 1</td> </tr> <tr> <td data-bbox="788 1570 906 1650">3001</td> <td data-bbox="906 1570 1303 1650">BK – OTC trade – delayed publication MTF TBA 1</td> </tr> <tr> <td data-bbox="788 1650 906 1731">1018</td> <td data-bbox="906 1650 1303 1731">BF – Inter fund cross-delayed publication requested MTF TBA 1</td> </tr> <tr> <td data-bbox="788 1731 906 1848">1019</td> <td data-bbox="906 1731 1303 1848">BC – Cancellation of OTC trade after date of publication MTF TBA 1</td> </tr> <tr> <td data-bbox="788 1848 906 1897">1020</td> <td data-bbox="906 1848 1303 1897">QT - OTC MTF TBA 2</td> </tr> <tr> <td data-bbox="788 1897 906 1977">1021</td> <td data-bbox="906 1897 1303 1977">QK – OTC trade – delayed publication MTF TBA 2</td> </tr> <tr> <td data-bbox="788 1977 906 2078">1022</td> <td data-bbox="906 1977 1303 2078">QF – Inter fund cross-delayed publication requested MTF TBA 2</td> </tr> </tbody> </table>		Description	17	LC – Late correction - XLON	20	NM – Not to mark - XLON	24	PC – Previous Day Contra	1000	O – Ordinary trade immediate publication-XLON	1004	IF - Inter Fund Transfer delayed publication-XOFF	1005	NK - Negotiated Trade delayed publication XLON	1006	NT - Negotiated Trade immediate publication-XLON	1007	OC – OTC Late Correction - XOFF	1008	OK – Ordinary Trade delayed publication-XLON	1009	OTC – Ordinary Trade Immediate publication-XOFF	1010	SC - SI Late Correction	1011	SI - SI Trade immediate publication	1012	SK - SI Trade delayed publication	1013	TK - OTC Trade delayed publication-XOFF	2001	BT - OTC MTF TBA 1	3001	BK – OTC trade – delayed publication MTF TBA 1	1018	BF – Inter fund cross-delayed publication requested MTF TBA 1	1019	BC – Cancellation of OTC trade after date of publication MTF TBA 1	1020	QT - OTC MTF TBA 2	1021	QK – OTC trade – delayed publication MTF TBA 2	1022	QF – Inter fund cross-delayed publication requested MTF TBA 2
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829 contd.	TrdSubType	N	1023	QC – Cancellation of OTC trade after date of publication MTF TBA 2
			1024	MT - OTC MTF TBA 3
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			1026	MF – Inter fund cross-delayed publication requested MTF TBA 3
			1027	MC – Cancellation of OTC trade after date of publication MTF TBA 3
			1028	CT - OTC MTF TBA 4
			1029	CK – OTC trade – delayed publication MTF TBA 4
			2002	CF – Inter fund cross-delayed publication requested MTF TBA 4
			1031	CC – Cancellation of OTC trade after date of publication MTF TBA 4
			1032	GC – Delayed Publication Late Correction XLON
			1033	NC - No to Mark Late Correction XLON
			1029	CK – OTC trade – delayed publication MTF TBA 4
			2002	CF – Inter fund cross-delayed publication requested MTF TBA 4
60	TransactTime	Y	Time trade, cancellation, or pre-release occurred. If an off-book trade is reported this is the date and time it was executed on the participant's system. This field should be mapped to the Transact Time of the internal TCR.	
32	LastQty	Y	Traded quantity.	
31	LastPx	Y	Traded price.	

236	Yield	N	In the case of some fixed income instruments, this will disseminate the Implied yield of this trade. This is a percentage field (e.g. 0.05 represents 5%). Required if PriceType (423) is Percentage of Par (1).								
64	SettlDate	N	Date on which the trade will settle. Will be populated for all off book trades (except for repo trades).								
574	MatchType	Y	Point in matching process trade was matched. <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>Off-Book Trade (Two-Party Report)</td> </tr> <tr> <td>4</td> <td>Continuous Trading</td> </tr> <tr> <td>7</td> <td>Auction</td> </tr> </tbody> </table>	Value	Meaning	2	Off-Book Trade (Two-Party Report)	4	Continuous Trading	7	Auction
Value	Meaning										
2	Off-Book Trade (Two-Party Report)										
4	Continuous Trading										
7	Auction										
106	Issuer	N	Issuer of the instrument. Required for fixed income instruments.								
48	SecurityID	Y	Unique Instrument ID assigned to the instrument in the Millennium Exchange.								
22	SecurityIDSource	Y	<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>Exchange Symbol</td> </tr> </tbody> </table>	Value	Meaning	8	Exchange Symbol				
Value	Meaning										
8	Exchange Symbol										
20100	OriginalPrice	N	Used to specify the price of the off book trade if it was carried out in a currency other than the trading currency of the instrument. The value specified is the value in SettlCurrency(120)								
120	SettlCurrency	N	Originally executing currency of the off book trade, if it is different to the instrument's trading currency. Valid values are iso-4217 currency list <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>GBX</td> <td>GB Pennies</td> </tr> <tr> <td>ZAC</td> <td>South African Cents (1/100th of a Rand)</td> </tr> <tr> <td>ITL</td> <td>Italian Lira</td> </tr> </tbody> </table>	Value	Meaning	GBX	GB Pennies	ZAC	South African Cents (1/100 th of a Rand)	ITL	Italian Lira
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ZAC	South African Cents (1/100 th of a Rand)										
ITL	Italian Lira										
454	NoSecurityAltID	N	If present, value in this field will always be "1".								

➔	455	SecurityAltID	N	Identification number of the instrument.						
➔	456	SecurityAltID Source	N	Type of instrument identification used. Required if SecurityAltID (455) is specified. <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>ISIN</td> </tr> </tbody> </table>	Value	Meaning	4	ISIN		
Value	Meaning									
4	ISIN									
552	NoSides		Y	Number of sides which will always be "1".						
➔	54	Side	Y	Side of the executed order. <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Buy</td> </tr> <tr> <td>2</td> <td>Sell</td> </tr> </tbody> </table>	Value	Meaning	1	Buy	2	Sell
Value	Meaning									
1	Buy									
2	Sell									
➔	1427	SideExecID	N	Identifier of the execution received by the order. Required only for messages sent by the server if TrdType(828) is Regular Trade (0). (i.e not required for messages sent by clients for submitting off book trades).						
➔	453	NoPartyIDs	N	Number of party identifiers.						
➔	➔	448	PartyID	N	Identifier of the party. If a trade is internalized, the Counterparty Firm (17) will be populated with the user's own Firm ID. If an on book trade is cleared, the Counterparty Firm (17) will be populated with the CCP. If an on book trade is cleared, the Clearing Organization (24) will be populated with the Clearing Member. If an on book trade is not cleared, the Counterparty Firm (17) will be populated with the Contra Party Firm ID.					
➔	➔	447	PartyID Source	N	<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>D</td> <td>Proprietary/Custom Code</td> </tr> </tbody> </table>	Value	Meaning	D	Proprietary/Custom Code	
Value	Meaning									
D	Proprietary/Custom Code									

➔	➔	452	Party Role	N	<p>Role of the specified PartyID (448).</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Executing Firm</td> </tr> <tr> <td>7</td> <td>Entering Firm</td> </tr> <tr> <td>17</td> <td>Contra Firm</td> </tr> <tr> <td>12</td> <td>Trader ID</td> </tr> <tr> <td>76</td> <td>Trader Group</td> </tr> <tr> <td>24</td> <td>Clearing Organization</td> </tr> </tbody> </table> <p>Trade Capture Report (Confirmation) sent for Off-Book trades will always have PartyRole(452) = 7 populated. If the Entering Firm (7) is not provided, the value specified in Executing Firm (1) field will be used. This field will not be added for On-Book trades.</p>	Value	Meaning	1	Executing Firm	7	Entering Firm	17	Contra Firm	12	Trader ID	76	Trader Group	24	Clearing Organization
Value	Meaning																		
1	Executing Firm																		
7	Entering Firm																		
17	Contra Firm																		
12	Trader ID																		
76	Trader Group																		
24	Clearing Organization																		
➔	625	Trading SessionSubID		N	<p>Defines trading phase during which the particular trade has taken place. All trades that take place during the closing price crossing session should have this field set to z</p>														
➔	1115	OrderCategory		Y	<p>Type of interest behind trade. Tag 1115 for off book trades can be populated in the server generated TCR based on an on/off switch</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Order</td> </tr> <tr> <td>2</td> <td>Quote</td> </tr> <tr> <td>3</td> <td>OffBook Trade</td> </tr> </tbody> </table>	Value	Meaning	1	Order	2	Quote	3	OffBook Trade						
Value	Meaning																		
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➔	1444	SideLiquidity Ind		N	<p>Whether the order added or removed liquidity.</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Added Liquidity</td> </tr> <tr> <td>2</td> <td>Removed Liquidity</td> </tr> <tr> <td>4</td> <td>Auction</td> </tr> </tbody> </table>	Value	Meaning	1	Added Liquidity	2	Removed Liquidity	4	Auction						
Value	Meaning																		
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2	Removed Liquidity																		
4	Auction																		
➔	37	OrderID		N	<p>Identifier of the executed order as specified by the matching system. This will be a 62 base encoded value in ASCII format.</p>														
➔	11	CIOrdID		N	<p>Identifier of the executed order as specified by the entering firm.</p>														

➔	528	OrderCapacity	Y	Capacity of the firm that placed the order. <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>Agency</td> </tr> <tr> <td>P</td> <td>Principal</td> </tr> <tr> <td>R</td> <td>Riskless Principal⁷</td> </tr> </tbody> </table>	Value	Meaning	A	Agency	P	Principal	R	Riskless Principal ⁷
Value	Meaning											
A	Agency											
P	Principal											
R	Riskless Principal ⁷											
➔	1	Account	N	Client Reference specified at order entry and off book entry. This field will support Norwegian Characters.								
➔	581	Account Type	Y	Clearing account type. <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Client</td> </tr> <tr> <td>3</td> <td>House</td> </tr> </tbody> </table> <p>For Off Book trades, value will be the one submitted in the trade report for the block that contains Executing Firm (1) Party Role (452); this will not be for the side block that contains Counterparty Firm (17) Party Role (452) in Off Book Trades.</p> <p>For On Book trades, the field will be populated with the value submitted in the order.</p>	Value	Meaning	1	Client	3	House		
Value	Meaning											
1	Client											
3	House											

⁷ For submission of off-book trade reports, Capacity (R), Riskless Principal is not permitted as a rule by the Exchange.

27011	PriceDifferential	N	Value	Meaning
			A	Aggressive (an order (visible or hidden/dark) which executes immediately; any residual if visible is then stamped based on its deviation from the current BBO or P if hidden/dark)
			B	New visible BBO
			1	Join visible BBO
			2	Joining/setting 2 nd best visible price
			3	Joining/setting 3 rd best visible price
			4	Joining/setting 4 th best visible price
			5	Joining/setting 5 th best visible price
			6	Joining/setting 6 th best visible price
			7	Joining/setting 7 th best visible price
			8	Joining/setting 8 th best visible price
9	Joining/setting 9 th best visible price or joining/ setting worse price point			
P	Passive (a Hidden order that rests i.e. do not execute. This is not valid for visible orders)			
548	Cross ID	N	The unique ID of the Cross/BTF Order.	
549	Cross Type	N	The type of the Cross/BTF Order.	
			Value	Meaning
			5	Internal Cross
			6	Internal BTF
			7	Committed Cross
8	Committed BTF			
Standard Trailer				

7.3.3 Trade Capture Report Request

Tag	Field Name	Req	Description								
Standard Header											
35	MsgType	Y	AD = Trade Capture Report Request								
Message Body											
568	TradeRequestID	Y	Identifier for the trade request.								
569	TradeRequestType	Y	<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>All Trades</td> </tr> <tr> <td>1</td> <td>Trades Matching Specified Criteria</td> </tr> </tbody> </table> <p>If none of the criteria below are specified, this will return all trades for the particular participant.</p>	Value	Meaning	0	All Trades	1	Trades Matching Specified Criteria		
Value	Meaning										
0	All Trades										
1	Trades Matching Specified Criteria										
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Value	Meaning										
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829	TrdSubType	N	<p>Conditionally required if TradeType denotes an off-book trade. The system will no validate the TrdSubType on an off book cancellation or pre-release.</p> <table border="1" data-bbox="651 488 1166 1845"> <thead> <tr> <th data-bbox="651 488 770 533"></th> <th data-bbox="770 488 1166 533">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="651 533 770 577">17</td> <td data-bbox="770 533 1166 577">LC – Late correction - XLON</td> </tr> <tr> <td data-bbox="651 577 770 622">20</td> <td data-bbox="770 577 1166 622">NM – Not to mark - XLON</td> </tr> <tr> <td data-bbox="651 622 770 667">24</td> <td data-bbox="770 622 1166 667">PC – Previous Day Contra</td> </tr> <tr> <td data-bbox="651 667 770 757">1000</td> <td data-bbox="770 667 1166 757">O – Ordinary trade immediate publication-XLON</td> </tr> <tr> <td data-bbox="651 757 770 835">1004</td> <td data-bbox="770 757 1166 835">IF - Inter Fund Transfer delayed publication-XOFF</td> </tr> <tr> <td data-bbox="651 835 770 913">1005</td> <td data-bbox="770 835 1166 913">NK - Negotiated Trade delayed publication XLON</td> </tr> <tr> <td data-bbox="651 913 770 992">1006</td> <td data-bbox="770 913 1166 992">NT - Negotiated Trade immediate publication-XLON</td> </tr> <tr> <td data-bbox="651 992 770 1070">1007</td> <td data-bbox="770 992 1166 1070">OC – OTC Late Correction - XOFF</td> </tr> <tr> <td data-bbox="651 1070 770 1149">1008</td> <td data-bbox="770 1070 1166 1149">OK – Ordinary Trade delayed publication-XLON</td> </tr> <tr> <td data-bbox="651 1149 770 1227">1009</td> <td data-bbox="770 1149 1166 1227">OTC – Ordinary Trade Immediate publication-XOFF</td> </tr> <tr> <td data-bbox="651 1227 770 1272">1010</td> <td data-bbox="770 1227 1166 1272">SC - SI Late Correction</td> </tr> <tr> <td data-bbox="651 1272 770 1350">1011</td> <td data-bbox="770 1272 1166 1350">SI - SI Trade immediate publication</td> </tr> <tr> <td data-bbox="651 1350 770 1429">1012</td> <td data-bbox="770 1350 1166 1429">SK - SI Trade delayed publication</td> </tr> <tr> <td data-bbox="651 1429 770 1507">1013</td> <td data-bbox="770 1429 1166 1507">TK - OTC Trade delayed publication-XOFF</td> </tr> <tr> <td data-bbox="651 1507 770 1563">2001</td> <td data-bbox="770 1507 1166 1563">BT - OTC MTF TBA 1</td> </tr> <tr> <td data-bbox="651 1563 770 1641">3001</td> <td data-bbox="770 1563 1166 1641">BK – OTC trade – delayed publication MTF TBA 1</td> </tr> <tr> <td data-bbox="651 1641 770 1742">1018</td> <td data-bbox="770 1641 1166 1742">BF – Inter fund cross-delayed publication requested MTF TBA 1</td> </tr> <tr> <td data-bbox="651 1742 770 1845">1019</td> <td data-bbox="770 1742 1166 1845">BC – Cancellation of OTC trade after date of publication MTF TBA 1</td> </tr> </tbody> </table>		Description	17	LC – Late correction - XLON	20	NM – Not to mark - XLON	24	PC – Previous Day Contra	1000	O – Ordinary trade immediate publication-XLON	1004	IF - Inter Fund Transfer delayed publication-XOFF	1005	NK - Negotiated Trade delayed publication XLON	1006	NT - Negotiated Trade immediate publication-XLON	1007	OC – OTC Late Correction - XOFF	1008	OK – Ordinary Trade delayed publication-XLON	1009	OTC – Ordinary Trade Immediate publication-XOFF	1010	SC - SI Late Correction	1011	SI - SI Trade immediate publication	1012	SK - SI Trade delayed publication	1013	TK - OTC Trade delayed publication-XOFF	2001	BT - OTC MTF TBA 1	3001	BK – OTC trade – delayed publication MTF TBA 1	1018	BF – Inter fund cross-delayed publication requested MTF TBA 1	1019	BC – Cancellation of OTC trade after date of publication MTF TBA 1
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			1032	GC – Delayed Publication Late Correction XLON	
			1033	NC - No to Mark Late Correction XLON	
48	SecurityID	N	Unique Instrument ID assigned to the instrument in the Millennium Exchange.		
454	NoSecurityAltID	N	If present, value in this field should always be “1”.		
➔	455	SecurityAltID	N	Identification number of the instrument.	

➔	456	SecurityAltID Source	N	Type of instrument identification used. Required if SecurityAltID (455) is specified. When an ISIN is specified, all trades related to that ISIN will be disseminated (irrespective of the fact that whether the same ISIN had been used in multiple instruments).														
				<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>ISIN</td> </tr> </tbody> </table>	Value	Meaning	4	ISIN										
Value	Meaning																	
4	ISIN																	
54	Side		N	Side of the executed order.														
				<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Buy</td> </tr> <tr> <td>2</td> <td>Sell</td> </tr> </tbody> </table>	Value	Meaning	1	Buy	2	Sell								
Value	Meaning																	
1	Buy																	
2	Sell																	
574	MatchType		N	Point in matching process trade was matched. Required only for messages sent by the server (i.e not required for messages sent by clients for submitting off book trades).														
				<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>Off Book Trade (Two Party Report)</td> </tr> <tr> <td>4</td> <td>Continuous Trading</td> </tr> <tr> <td>7</td> <td>Auction</td> </tr> </tbody> </table>	Value	Meaning	2	Off Book Trade (Two Party Report)	4	Continuous Trading	7	Auction						
Value	Meaning																	
2	Off Book Trade (Two Party Report)																	
4	Continuous Trading																	
7	Auction																	
11	ClOrdID		N	Identifier of the executed order as specified by the entering firm.														
37	OrderID		N	Identifier of the executed order as specified by matching system.														
453	NoPartyIDs		N	Number of party identifiers.														
➔	448	PartyID	N	Identifier of the party.														
➔	447	PartyIDSource	N	<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>D</td> <td>Proprietary/Custom Code</td> </tr> </tbody> </table>	Value	Meaning	D	Proprietary/Custom Code										
Value	Meaning																	
D	Proprietary/Custom Code																	
➔	452	PartyRole	N	Role of the specified PartyID (448).														
				<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Executing Firm</td> </tr> <tr> <td>7</td> <td>Entering Firm</td> </tr> <tr> <td>12</td> <td>Trader ID</td> </tr> <tr> <td>17</td> <td>Counterparty Firm</td> </tr> <tr> <td>76</td> <td>Trader Group</td> </tr> <tr> <td>24</td> <td>Clearing Organisation</td> </tr> </tbody> </table>	Value	Meaning	1	Executing Firm	7	Entering Firm	12	Trader ID	17	Counterparty Firm	76	Trader Group	24	Clearing Organisation
Value	Meaning																	
1	Executing Firm																	
7	Entering Firm																	
12	Trader ID																	
17	Counterparty Firm																	
76	Trader Group																	
24	Clearing Organisation																	

22	SecurityIDSource	N	Required if SecurityID (48) is specified				
			<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>Exchange Symbol</td> </tr> </tbody> </table>	Value	Meaning	8	Exchange Symbol
Value	Meaning						
8	Exchange Symbol						
1	Account	N	Client reference for the trade.				
Standard Trailer							

7.3.4 Application Message Request

Tag	Field Name	Req	Description						
Standard Header									
35	MsgType	Y	BW = Application Message Request						
Message Body									
1346	ApplReqID	Y	Client specified unique identifier of the request.						
1347	ApplReqType	Y	Type of request. <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Retransmission of Application Messages</td> </tr> <tr> <td>2</td> <td>Request for Last ApplLastSeqNum</td> </tr> </tbody> </table>	Value	Meaning	0	Retransmission of Application Messages	2	Request for Last ApplLastSeqNum
Value	Meaning								
0	Retransmission of Application Messages								
2	Request for Last ApplLastSeqNum								
1351	NoApplIDs	Y	Number of ApplIDs to which the request relates.						
➔	1355	RefApplID	Y	Identifier of the matching partition.					
➔	1182	ApplBeg SeqNum	N	Application sequence number of first message in range to be resent. Required if ApplReqType (1347) is Retransmission of Application Messages (0).					
➔	1183	ApplEnd SeqNum	N	Application sequence number of last message in range to be resent. Required if ApplReqType (1347) is Retransmission of Application Messages (0).					
Standard Trailer									

7.3.5 Application Message Request Ack

Tag	Field Name	Req	Description									
Standard Header												
35	MsgType	Y	BX = Application Message Request Ack									
Message Body												
1353	ApplResponseID	Y	Server specified identifier of the acknowledgement.									
1346	ApplReqID	Y	Identifier of the request being acknowledged.									
1347	ApplReqType	Y	Type of request being acknowledged. <table border="1" data-bbox="544 736 1174 884"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Retransmission of Application Messages</td> </tr> <tr> <td>2</td> <td>Request for Last ApplLastSeqNum</td> </tr> </tbody> </table>	Value	Meaning	0	Retransmission of Application Messages	2	Request for Last ApplLastSeqNum			
Value	Meaning											
0	Retransmission of Application Messages											
2	Request for Last ApplLastSeqNum											
1351	NoApplIDs	Y	Number of ApplIDs to which the request relates.									
➔	1355	RefApplID	Y	Identifier of the matching partition.								
➔	1182	ApplBeg SeqNum	N	Application sequence number of first message in range to be resent. Required if ApplReqType (1347) is Retransmission of Application Messages (0).								
➔	1183	ApplEnd SeqNum	N	Application sequence number of last message in range to be resent. Required if ApplReqType (1347) is Retransmission of Application Messages (0).								
➔	1357	RefAppl LastSeq Num	N	ApplSeqNum of the last trade generated for the client. Required if ApplReqType (1347) is Request for Last ApplLastSeqNum (2) and ApplResponseError (1354) is not specified.								
➔	1354	Appl Response Error	N	Reason request is rejected. <table border="1" data-bbox="544 1400 1166 1594"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>ApplID Does Not Exist</td> </tr> <tr> <td>1</td> <td>Requested Trades are Not Available</td> </tr> <tr> <td>2</td> <td>Client Not Authorised</td> </tr> </tbody> </table>	Value	Meaning	0	ApplID Does Not Exist	1	Requested Trades are Not Available	2	Client Not Authorised
Value	Meaning											
0	ApplID Does Not Exist											
1	Requested Trades are Not Available											
2	Client Not Authorised											
Standard Trailer												

7.3.6 Trade Capture Report Ack

Tag	Field Name	Req	Description						
Standard Header									
35	MsgType	Y	AR = Trade Capture Report Ack						
Message Body									
1003	TradeID	N	Value submitted with the trade cancel/pre-release request. Required only for messages generated in response to trade cancel requests or pre-release requests.						
1041	FirmTradeID	N	Value submitted with the trade report. Required only for the messages generated by the server to respond to client generated messages with regard to off book trades.						
856	TradeReportType	Y	Value submitted with the trade report. This field will not be populated if the trade report gets rejected when a value is not specified in the trade report submitted by the client.						
751	TradeReportReject Reason	N	Code specifying the reason for rejection. Please refer to Section 8 for a list of reject codes. Required if TrdRptStatus (939) is Rejected (1).						
58	Text	N	Text specifying the reason for the rejection.						
487	TradeReportTrans Type	N	Value submitted with the trade report. This field will not be populated if the trade report gets rejected when a value is not specified in the trade report submitted by the client.						
939	TrdRptStatus	Y	Specifies whether the Trade Capture Report was accepted or rejected. <table border="1" data-bbox="603 1265 1165 1411"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Accepted</td> </tr> <tr> <td>1</td> <td>Rejected</td> </tr> </tbody> </table>	Value	Meaning	0	Accepted	1	Rejected
Value	Meaning								
0	Accepted								
1	Rejected								
1123	TradeHandlingInstr	Y	Value submitted with the trade report.						
573	MatchStatus	N	Status of the pre-negotiated trade. <table border="1" data-bbox="603 1556 1165 1702"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Matched</td> </tr> <tr> <td>1</td> <td>Unmatched</td> </tr> </tbody> </table>	Value	Meaning	0	Matched	1	Unmatched
Value	Meaning								
0	Matched								
1	Unmatched								
48	SecurityID	Y	Unique Instrument ID assigned to the instrument in the Millennium Exchange.						
22	SecurityIDSource	Y	<table border="1" data-bbox="603 1825 1165 1917"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>Exchange Symbol</td> </tr> </tbody> </table>	Value	Meaning	8	Exchange Symbol		
Value	Meaning								
8	Exchange Symbol								

32	LastQty	N	Value submitted with the trade report. Will not be populated for TCR Acks generated for cancel or pre-release request.						
31	LastPx	N	Value submitted with the trade report. Will not be populated for TCR Acks generated for cancel or pre-release request.						
828	TrdType	N	Value submitted with the trade report.						
60	TransactTime	N	If acknowledging an off-book trade sent with an empty TransactTime or invalid value, the value returned will be the time the message was generated by the server. Otherwise, the value submitted in the original trade report.						
1352	ApplResendFlag	N	<p>Whether the message is sent in response to an Application Message Request. Absence of this field is interpreted as Original Transmission (N).</p> <table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>Y</td> <td>Response to Application Message Request</td> </tr> <tr> <td>N</td> <td>Original Transmission</td> </tr> </tbody> </table> <p>Will not be used in messages sent by clients for submitting off book trades.</p>	Value	Meaning	Y	Response to Application Message Request	N	Original Transmission
Value	Meaning								
Y	Response to Application Message Request								
N	Original Transmission								

7.3.7 Trade Capture Report Request Ack

Tag	Field Name	Req	Description												
Standard Header															
35	MsgType	Y	AQ = Trade Capture Report Request Ack												
Message Body															
568	TradeRequestID	Y	Identifier of the request being acknowledged.												
569	TradeRequestType	Y	Value specified in the request.												
750	TradeRequestStatus	Y	Whether the request is accepted or rejected. <table border="1" data-bbox="595 808 1157 954"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Accepted</td> </tr> <tr> <td>2</td> <td>Rejected</td> </tr> </tbody> </table>	Value	Meaning	0	Accepted	2	Rejected						
Value	Meaning														
0	Accepted														
2	Rejected														
749	TradeRequestResult	Y	Reason the request is rejected. <table border="1" data-bbox="595 1041 1157 1359"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Successful</td> </tr> <tr> <td>8</td> <td>TradeRequestType not supported</td> </tr> <tr> <td>9</td> <td>Not Authorized / Max number of requests exceeded.</td> </tr> <tr> <td>100</td> <td>Cannot match selection criteria</td> </tr> <tr> <td>200</td> <td>Request Limit for Day Reached</td> </tr> </tbody> </table>	Value	Meaning	0	Successful	8	TradeRequestType not supported	9	Not Authorized / Max number of requests exceeded.	100	Cannot match selection criteria	200	Request Limit for Day Reached
Value	Meaning														
0	Successful														
8	TradeRequestType not supported														
9	Not Authorized / Max number of requests exceeded.														
100	Cannot match selection criteria														
200	Request Limit for Day Reached														
748	TotNumTradeReports	N	Number of Trade Capture Reports that will be sent in response to the request. Required if TradeRequestStatus (750) is Accepted (0).												
Standard Trailer															

7.3.8 Trade Capture Report Cancellation of On-Book Trades

Tag	Field Name		Req	Description	
Standard Header					
35	MsgType		Y	AE = Trade Capture Report	
Message Body					
1003	TradeID		Y	Server-assigned identifier of the trade.	
856	TradeReportType		Y	Type of trade report.	
				Value	Meaning
				6	Trade Report Cancel
487	TradeReportTrans Type		Y	Type of request.	
				Value	Meaning
				0	New
828	TrdType		N		
				Value	Meaning
				0	Regular Trade
48	SecurityID		Y	Unique Instrument ID assigned to the instrument in the Millennium Exchange.	
22	SecurityIDSource		Y	Value	Meaning
				8	Exchange Symbol
60	TransactTime		N	Time the message was generated by the client.	
552	NoSides		Y	Number of sides. The value in this field should always be "1".	
➔	54	Side	Y	Side of the trade.	
				Value	Meaning
				1	Buy
				2	Sell
➔	453	NoPartyIDs	N	Number of party identifiers.	
➔	➔	448	PartyID	N	Identifier of the party.
➔	➔	447	PartyID Source	Value	Meaning
				D	Proprietary/Custom Code

→	→	452	Party Role	N	Role of the specified PartyID (448). For On Book trade cancellations, the party block should contain Executing Firm (1) and Trader Group (76).												
					<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Executing Firm</td> </tr> <tr> <td>17</td> <td>Contra Firm</td> </tr> <tr> <td>12</td> <td>Trader ID</td> </tr> <tr> <td>24</td> <td>Clearing Organisation</td> </tr> <tr> <td>76</td> <td>Trader Group</td> </tr> </tbody> </table>	Value	Meaning	1	Executing Firm	17	Contra Firm	12	Trader ID	24	Clearing Organisation	76	Trader Group
Value	Meaning																
1	Executing Firm																
17	Contra Firm																
12	Trader ID																
24	Clearing Organisation																
76	Trader Group																
Standard Trailer																	

7.3.9 Business Message Reject

Tag	Field Name	Req	Description								
Standard Header											
35	MsgType	Y	j = Business Message Reject								
Message Body											
379	BusinessRejectRefID	N	Client specified identifier (e.g. Firm Trade ID) of the rejected message if it is available.								
45	RefSeqNum	Y	MsgSeqNum (34) of the rejected message.								
372	RefMsgType	Y	MsgType (35) of the rejected message.								
371	RefTagID	N	If a message is rejected to due to an issue with a particular field its tag number will be indicated.								
379	BusinessRejectRefID	N	Client specified identifier (e.g. Firm Trade ID) of the rejected message if it is available. <table border="1"> <thead> <tr> <th>Message</th> <th>Identifier</th> </tr> </thead> <tbody> <tr> <td>TradeCaptureReport</td> <td>FirmTradeID(1041)</td> </tr> <tr> <td>TradeCaptureReportRequest</td> <td>TradeRequestID(568)</td> </tr> <tr> <td>ApplicationMessageRequest</td> <td>AppReqID(1346)</td> </tr> </tbody> </table>	Message	Identifier	TradeCaptureReport	FirmTradeID(1041)	TradeCaptureReportRequest	TradeRequestID(568)	ApplicationMessageRequest	AppReqID(1346)
Message	Identifier										
TradeCaptureReport	FirmTradeID(1041)										
TradeCaptureReportRequest	TradeRequestID(568)										
ApplicationMessageRequest	AppReqID(1346)										
380	BusinessRejectReason	Y	Code specifying the reason for the reject. Please refer to Section 8 for a list of reject codes.								
58	Text	N	Text specifying the BusinessRejectReason(380)								
Standard Trailer											

8.0 Reject codes

8.1 Session Rejects

Session Reject Reason	Meaning
1	Required tag missing
2	Tag not defined for this message type
4	Tag specified without a value
5	Value is incorrect (out of range) for this tag
6	Incorrect data format for value
9	CompID problem
13	Tag appears more than once
14	Tag specified out of required order
15	Repeating group fields out of order
16	Incorrect NumInGroup count for repeating group
18	Invalid or unsupported application version
99	Other

8.2 Trade Capture Report Ack

Trade Report Reject Reason	Meaning
2	Unknown instrument
4	Invalid TrdSubType (829)
99	Other– will include system generated text on the exact error

Please refer to the Millennium Specification MIT801 Reject Codes for all the reject codes and meanings specific to LSE.

8.3 Business Message Reject

Business Reject Reason	Meaning
0	Message rate exceeded
3	Unsupported message type
4	Application not available
5	Conditionally required field missing

9.0 Service availability

Customer Activity	Availability
Telnet Access	02:00 - 18:17
Login Access	04:00 - 18:17
TCR Message Receipt	07:15 - 18:15
OTBD Requests	05:00 - 18:15
Trade Report Entry	07:15 - 17:15

Clients wishing to test connectivity outside of these hours should review MIT501 – Guide to Testing Services for more information.

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