

TRADEcho MiFID II PostTrade (APA & On-Exchange/Off- Book) FIX Specification

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About this document

FIX specification for interaction with TRADEcho services for APA direct and Off-Book reporting to the LSE.

Intended audience

Technical teams responsible for developing connectivity to the TRADEcho post-trade transparency services.

Related documents

- TRADEcho MiFID II PostTrade FIX Specification (includes APA and SRR)
- SRR User Guide
- TRADEcho Portal User Guide
- TRADEcho Connectivity Guide
- MIT201—Guide to the Trading System

Terms and acronyms

Term/Acronym	Description
APA	Approved Publication Arrangement
ARM	Approved Reporting Mechanism
CCP	Central Counterparty
ESMA	European Securities and Market Authority
ISIN	International Securities Identification Number
LEI	Legal Entity Identifiers
LIS	Large-in-Scale
LSE	London Stock Exchange
MiFID	Markets in Financial Instruments Directive
MTF	Multilateral Trading Facility
MMT	Market Model Typology
OTC	Over-the-Counter
OTF	Organised Trading Facility
SI	Systematic Internaliser
SSTI	Size Specific to Instrument
TCR	Trade Capture Report
TCR-Ack	Message used to Acknowledge / Reject trade capture reports received from a client
TCR-C	Trade report or instruction on a trade report sent from clients to the APA
TCR-S	The server initiated Trade Capture Report message (TCR-S) is an enrichment message sent from the APA to clients

Revision history

This document has been revised according to the following table:

Version	Change	Date
3.0.0-Rev C	<ul style="list-style-type: none"> New SI MIC section, 1..18 	Nov 16, 2018
3.0.0-Rev B	<ul style="list-style-type: none"> Additional value for PartySubID (523), APA (TCR-C and TCR-S). 	Nov 16, 2018
3.0.0-Rev A	<ul style="list-style-type: none"> New tag TargetAPA (25011) in APA (TCR-C and TCR-S) New tag SiMic (25026) in APA (TCR-C and TCR-S) 5.1.1 and 7.1.5 added clarification about a Late Cancel. 	Nov 16, 2018
2.13.0-Rev B	<ul style="list-style-type: none"> Updated information about the hours of operation 	Aug 31, 2018
2.12.0-Rev A	<ul style="list-style-type: none"> Added new value to TradeReportSystem (7584) 	May 29, 2018
2.11.0-Rev A	<ul style="list-style-type: none"> Changed the revision name. 	May 24, 2018
2.11-A	<ul style="list-style-type: none"> Clarified valid values and default value for tag ApplySupplementaryDeferral (20200) in the TCR-C message for APA. Added tag ExtendedSupplementaryDeferralRegime (20201) to the TCR-C and TCR-S messages for APA. 	May 4, 2018
2.10-B	<ul style="list-style-type: none"> Added valid value E = ISO Country Code to tag PartyIDSource (447), used in the TCR-C and TCR-S messages for APA. Added valid value 75 = Location ID to tag PartyRole (452) (for entering side), used in the TCR-C and TCR-S messages for APA. Added tag ApplySupplementaryDeferral (20200) to the TCR-C and TCR-S messages for APA. 	Apr 9, 2018
2.10-A	<ul style="list-style-type: none"> No changes in this release. 	Mar 13, 2018
2.9-C	<ul style="list-style-type: none"> Corrected the length of tag FirmTradeID (1041) to 50 characters. 	Mar 9, 2018
2.9-B	<ul style="list-style-type: none"> Made tag UnitOfMeasureQty (1147) conditionally required if tag UnitOfMeasure (996) is specified in the TCR-C message for APA. Removed OTCD ID. It is currently not supported. Updated valid values for tag ClearingIntention (1924) in the TCR-C message for APA. 	Feb 20, 2018
2.9-A	<ul style="list-style-type: none"> No changes in this release. 	Feb 2, 2018
2.8-D	<ul style="list-style-type: none"> Fixed broken links in Introduction chapter. 	Jan 9, 2018
2.8-C	<ul style="list-style-type: none"> Removed values 7013 (Executing firm not registered to submit trade reports) and 7061 (Package component with TradeNumber already used on different TradeID) from tag TradeReportRejectReason (751), used in the TCR-Ack message for APA Updated the intended operational hours for Trade Report publication, see Hours of operation on page 13. Added EUX (Euro Cents), SRG (Guilder), USE (USD TO EUR FOR BIT), and USX (US Cents) to list of valid currencies, see Currency on page 14. Updated description of tag TrdRegPublicationReason (2670) in the TCR-S message for APA 	Dec 21, 2017

2.8-B	<ul style="list-style-type: none"> Updated the intended operational hours, see Hours of operation on page 13. 	Nov 30, 2017
2.8-A	<ul style="list-style-type: none"> Removed tag LateTradeCaptureReport (20001) from TCR-C and TCR-S for APA The following changes have been made for pending price: <ul style="list-style-type: none"> Clarified that tag LastPx (31) is not required when TradePriceCondition (1839) = 17 (PNDG) in the TCR-C message for APA Made tag LastPx (31) conditionally required in the TCR-S message for APA Clarified that tag DelayToTime (7552) is ignored when TradePriceCondition (1839) = 17 (PNDG) in the TCR-C message for APA Added tag TradeReportSystem (7584) to TCR-S message for APA Corrected value of MatchType in section New On-Exchange Off-book trades in chapter Trade reporting message guide 	Nov 15, 2017
2.7-D	<ul style="list-style-type: none"> ISIN can now be used for all flows, section 1.8.2 updated. When using ISIN, CountryOfIssue (470) is optional, so tag changed to not required in TCR messages Changed tag VenueType (1430) from required to conditionally required for off book trades and removed statement that some values are ignored in TCR-C for APA Removed sentence that stated that tag LastPx (31) is required to be 1 when TradePriceCondition (1839) is 17 in section 1.12.3 Updated the intended operational hours, see Hours of operation on page 13. 	Nov 2, 2017
2.7-C	<ul style="list-style-type: none"> Clarified that OTCD ID will not be supported for initial go live, but will be introduced at a later stage. Affected tags and values marked with strikethrough in messages. Made tag OrigTradeID (1126) conditionally required when amending a trade report in APA TCR messages 	Oct 23, 2017
2.7-B	<ul style="list-style-type: none"> Added new valid values to PartyRole on TCR-C and TCR-S, and a note on the TCR-S message. Removed the sentence that stated that ISIN can be used for off-book on-exchange in section 1.8.2. 	Oct 17, 2017

2.7-A	<ul style="list-style-type: none"> Tags TradeID (1003) and FirmTradeID (1041) were listed twice in message TCR-Ack (AR) for APA. Duplicates removed Removed statement that currency must match the currency in LSE's reference data universe in order for the trade report not to be rejected when using LSE ID for on-venue, off-book trades Corrected tag Currency (15) as conditionally required on TCR-Ack (AR) and TCR-S (AE) for SRR to reflect behaviour in TCR-C (AE) Removed tag SecondaryTradeID (1040) from messages TCR-C and TCR-S for APA Removed valid value 2 from tag TrdRegPublicationType (2669), used in messages TCR-C and TCR-S (AE) for APA Removed valid values 9, 10, 11, and 12 from tag TrdRegPublicationReason (2670), used in messages TCR-C and TCR-S (AE) for APA and SRR Made FirmTradeID (1041) an updatable field in both APA and SRR TCR messages. 	Oct 13, 2017
2.6-A	<ul style="list-style-type: none"> Added data types to tags Removed TradeReportTransType (487) = 2 from APA amend information in the Trade reporting message guide Added component PartySubldGrp (tags 802, 523, and 803) to the TCR-C and TCR-S messages for APA Clarified that any ISIN or OTCD ID not found in the TRADEcho ToTV universe is regarded as not eligible for reporting, see Product identifiers on page 13. 	Sep 15, 2017
2.5-A	<ul style="list-style-type: none"> Corrected tag TestReqID (112) as required in a TestRequest (1) message. Removed section on MiFIR reference data under Transparency reference data chapter Changed description for tags NoPartyIDs (453), PartyID (448), PartyRole (452), and PartyIDSource (447) in TCR-S (AE) message for APA Corrected the flow for amending a trade in the APA Removed valid value 2 (Replace) for tag TradeReportTransType (487) in TCR-C for APA, since it is not supported Updated description for tag OrigTradeID (1126) used in message TCR-C for APA 	Sep 1, 2017
3	<ul style="list-style-type: none"> Initial 	Jul, 2017

1 Introduction

TRADEcho is the service name for the London Stock Exchange Groups' transparency services. TRADEcho facilitates efficient, multi-asset class, trade and Systematic Internaliser quote publication.

The TRADEcho service is hosted and operated by the London Stock Exchange. Boat's TRADEcho team provide specialist product and regulatory knowledge. The Exchanges' real-time publication service TRADEcho, is complemented by UnaVista, the Groups' regulatory reporting service.

1.1 TRADEcho

Under MiFID II TRADEcho will offer:

- Pre-trade SI quoting. Publishing quotes via London Stock Exchange's market data feeds, TRADEcho's website, client websites and the service's portal;
- Post-trade trade reporting. An APA (Approved Publication Arrangement) service supporting OTC, SI, OTF, MTF, and on-exchange off-book reporting;
- Smart Report Router. Clients can send trades into the SRR service and use the easy-to-configure rules engine to determine **IF** a report is eligible for publication and **by WHOM**, then send it to an APA service that will determine **WHEN** to publish the report;
- Support for all asset classes covered by MiFID II, including equities, depositary receipts, ETFs, equity derivatives, commodities, fixed income and other financial instruments;
- A web-based portal providing access to the services.
- A cleared model will be introduced in 2018. Clients will be able to flag off-book and OTC reports for onward routing to CCP, netting these trades with order book trades will realise settlement and margin savings;

This document outlines the FIX message specification for clients connecting directly to the TRADEcho APA for post transparency and for taking off-book trades onto (under the rules of) the exchange. It does not include functionality descriptions when connecting to the TRADEcho SRR (Smart Report Router) service.

Note: As this document was created as a subset of the complete TRADEcho FIX Specification that includes both APA and SRR functionality, the original SRR section headings have been retained to maintain consistency of referencing between the 2 documents.

1.2 Smart Report Router (SRR) and APA overview

Note: As this document was created as a subset of the complete TRADEcho FIX Specification that includes both APA and SRR functionality, the original SRR section headings have been retained to maintain consistency of referencing between the 2 documents.

1.3 APA (Approved Publication Arrangement)

Approved publication arrangement (APA) means a person authorised under the provisions established in MiFID II to provide the service of publishing trade reports on behalf of investment firms.

APAs, Approved Reporting Mechanisms (ARMS) and Consolidated Tape Providers (CTPs) are new categories of Data Reporting Service Providers (DRSPs) under MiFID II.

Article 20 MiFIR states that, "investment firms which, either on own account or on behalf of clients, conclude transactions in shares, depositary receipts, ETFs, certificates and other similar financial instruments traded on a trading venue, shall make public the volume and price of those transactions and the time at which they were concluded. That information shall be made public through an APA". A similar obligation is introduced for bonds, structured finance products, emission allowances and derivatives traded on a trading venue in Article 21 MiFIR.

The APA is required to have adequate policies and arrangement in place to make public the information required under Articles 20 and 21 MiFIR as close to real time as is "technically possible".

For further details on each service please reference the APA and SRR Service Descriptions which are available on the TRADEcho Client Hub:

www.TRADEcho.com/users/clienthub

1.4 FIX overview

This document describes the TRADEcho FIX protocol implementation for entering Trade Reports using FIX.5.0.SP2 (including earlier FIX release features).

It is assumed that the reader is familiar with FIX v.5.0 and MMT as detailed by the FIX Protocol Organisation. For further information on FIX please see:

Fix 5.0 SP2 Specification:

<https://www.fixtrading.org/standards/fix-5-0-sp-2/>

MMT:

<https://www.fixtrading.org/mmt/>

MiFID II working groups:

<https://www.fixtrading.org/working-groups/>

1.4.1 *FIX Market Model Typology (MMT)*

TRADEcho supports the use of the industry standard FIX MMT (Market Model Typology). For more information, see <https://www.fixtrading.org/mmt/>.

"The MMT initiative is a collaborative effort established by a broad range of industry participants (trading/reporting venues, data vendors and buy/sell side participants). The initiative is committed to achieving a practical and common solution for standards on post-trade data across all asset classes subject to MiFID II. The initiative unites a variety of industry participants in the basic belief that we can and should act without any further delay to improve the consistency and comparability of data from different sources.

To achieve this goal, we have developed the Market Model Typology (MMT) project, which found its original inspiration in the 2010 CESR Technical Working Group recommendations. The latest MMT version delivers an efficient operational solution for fulfilling trade flagging requirements raised in MiFID II RTS 1 and RTS2. The model is available for immediate adoption and can be used by vendors and clients. In addition to the work on standards for RMs and MTFs, we continue to attract wide-ranging industry support for the standards and are working to expedite their broad implementation, notably to define OTC trading reporting rules."

This specification reflects the latest version of MMT at the time of writing. Notification will be given if further MMT updates are made that impact the

TRADEcho APA. The latest service information and documentation can be found at: www.tradecho.com/clienthub

1.4.2 Conventions Used

For the sake of readability some field names in the message tables have been split across 2 lines; in all cases, all FIX fields have no spaces in their names.

All message specification field tables presented in this document have a **Reqd** column populated with a **Y**, **C** or **N**. These are defined as:

- For messages from the client to TRADEcho:
 - Y** = Mandatory—must be populated with a value of appropriate data type otherwise a level-1 reject (**MsgType = j**) will be sent back to the client with **SessionRejectReason** (373) = **1** (Required Tag Missing)
 - C** = Conditional—must be populated if another field's value depends upon it. The field's description usually contains the phrase, "Required when...". If not populated when conditionally required, this should result in a level-2 reject (**MsgType = j**) with **BusinessRejectReason** (380) = **5** (Conditionally required field missing)
 - N** = An optional field but may be needed to support specific business logic. Often used in conjunction with default values which may therefore require overriding by the client. Values considered as unacceptable for the given business scenario may result in any of the 3 reject-level messages. Other values may cause warning or informational fields to be populated on the TCR-S.
- For messages from TRADEcho to the client:
 - Y** = Always populated with a valid value
 - C** = Will be populated if required by another field's value
 - N** = May be populated

1.5 The trade capture report

The FIX message used by TRADEcho APA to model trade information is the TradeCaptureReport (message type AE). The FIX message TradeCaptureReportAck (AR) is used for application level acknowledgements. In this document these two messages are abbreviated TCR and TCR-Ack respectively.

The TCR is used both when a client submits trade information to TRADEcho (i.e. a client initiated TCR), and when TRADEcho sends back enriched trade information (i.e. a server initiated TCR). These two versions of the TCR are abbreviated TCR-C and TCR-S respectively.

The different flavors of these messages are:

- TCR: TradeCaptureReport (AE)
- TCR-C: TradeCaptureReport from client to TRADEcho
- TCR-S: TradeCaptureReport from TRADEcho to client
- TCR-Ack: Application level acknowledgement of a TCR-C

The standard messaging flow is:

- Client sends a TCR-C to TRADEcho
- TRADEcho acknowledges the TCR-C with a TCR-Ack

3. If the client message was accepted, TRADEcho sends a TCR-S with enriched fields back to the client. For APA clients the message can also be sent to the counterparty.
4. In case of deferrals a second TCR-S is sent from TRADEcho when the trade has been published

1.6 Differences in TCR fields between the SRR and TRADEcho APA services

Note: As this document was created as a subset of the complete TRADEcho FIX Specification that includes both APA and SRR functionality, the original SRR section headings have been retained to maintain consistency of referencing between the 2 documents.

1.7 Hours of operation

The current intention is to operate the service as follows (all in UK time):

- FIX Engine and Portal availability: 06:00-19:15
- Off Book/On Exchange Trade Report submission: 07:15-17:15
(with publication only of deferred trades up to 19:15)
- OTC and SI Trade Report/Quote submission: 06:00-19:15
- Trade Report publication for Off Exchange trades: 06:00-19:15

Trade reports will be rejected if received outside the operational hours.

The operational hours will be kept under review following further consultation with clients and regulators. Please check the ClientHub for the latest updates.

1.8 Product identifiers

TRADEcho supports two product identification types:

- LSE ID
- ISIN

LSE IDs and ISINs can be used for all asset classes.

Product identifiers are provided in the morning reference data download as outlined below.

1.8.1 LSE ID

Unique instrument ID assigned to the product by the exchange. If LSE ID is used, it must be present in the reference data universe made available that morning. Invalid or unknown LSE IDs received will result in a rejection.

When using the LSE ID, the client must send:

- Tag 22 (**SecurityIDSource**) = 8 (Exchange Symbol)
- Tag 48 (**SecurityID**) = LSE ID

Note: Based on regulatory guidance the actual traded price and currency will be published therefore, Tag 15 (**Currency**) and Tag 31 (**LastPx**) represent actual traded values, they do not reflect the exchange traded currency of the instrument. This is a change from the previous TRADEcho specification.

1.8.2 ISIN

The service supports ISINs for all asset classes (including OTC Derivatives) and all flows. The ISIN universe of instruments for APA publication consists of all

that have been classed as ToTV (*Traded on a MiFID II Trading Venue*) in time for inclusion in the morning reference data refresh.

Where unknown ISINs are received on trade reports, they are regarded as out of scope on the basis of not being in the ToTV universe.

When using ISIN to identify products, the client must send:

- Tag 22 (**SecurityIDSource**) = 4 (ISIN)
- Tag 48 (**SecurityID**) = ISIN code

Optionally the client can send the following fields (to assist with identifying a unique instrument for ISINs that have multiple country and currency listings):

- Tag 15 (**Currency**)—Traded currency
- Tag 470 (**CountryOfIssue**)—ISO country code.

Note: The search technique for locating the correct instrument is to start with just the ISIN and then try combinations with **Currency** and **CountryOfIssue** until only one result is found. E.g. if a single row is returned from using just the ISIN and **Currency**, the **CountryOfIssue** will not be used. If, after all 3 are used, multiple rows are returned, one of the instruments will be used.

1.9 Transparency reference data

1.9.1 LSEG Reference data

The Reference Data Service provides instrument reference data to participants for products that can be traded on or off book on the LSEG markets in a *flat file* format. This data is made available via FTP/SFTP, full details of the interface are specified in *MIT401 – Guide to Reference Data Services*.

In addition to the flat file a subset of reference data is available via the Market Data feed each morning. Full details are provided in *MIT301 – Guide to Market Data Services and GTP001 – Product Guide*.

1.10 Currency

The **Currency** (15) published by the APA should be that in which the trade was transacted.

Valid values are ISO-4217 Currency list plus:

Value	Meaning
EUX	Euro Cents
GBX	GB Pennies
ITL	Italian Lira
SRG	Guilder
USE	USD TO EUR FOR BIT
USX	US Cents
ZAC	South African Cents (1/100 th of a Rand)

1.11 Timestamps

Under MiFID II timestamps for all on venue trades have a granularity level up to 1 microsecond. For off-venue trades, the requirement is to have this to the nearest second.

The formats supported by TRADEcho in all timestamps are

Second granularity: YYYYMMDD-HH:MM:SS

Millisecond granularity: YYYYMMDD-HH:MM:SS.sss

Microsecond granularity: YYYYMMDD-HH:MM:SS.ssssss

Date: YYYYMMDD.

All timestamps sent to TRADEcho shall be in UTC.

1.12 Pricing

1.12.1 Tick Sizes

The tick size is the minimum valid increment for on-exchange off-book trade reports. Tick Sizes have no relevance for OTC trade reports, that is, they do not need to conform to any tick size tables. For on-exchange off-book reports please refer to *MIT 201 - The Guide to Trading Services* for details on valid tick values (see <http://www.londonstockexchange.com/products-and-services/technical-library/millennium-exchange-technical-specifications/mit201guidetotradingsservicesv141andtradecho.pdf>).

1.12.2 Rounding

The TRADEcho service supports up to 5 decimal places. For example, OTC trade prices not subject to a tick size regime can be sent with 5 dcp. Any values received beyond 5 dcp are dropped by the TRADEcho FIX gateway. The number of dcp supported remains under consultation with clients.

1.12.3 Pending Price

Trade publication with a pending price remains under discussion with the regulators. TRADEcho will support pending price by following FIX Protocol recommendations (see <https://www.fixtrading.org/packages/ep228/>), by using a new enumeration for **TradePriceCondition** (1839) of PNDG if and when it is approved. This value is set at the discretion of the client and the price will not be validated when the PNDG value is set.

1.13 MiFID II regulatory flags

Subject to further regulatory guidance the expectation is that firms set and publish flags on a trade report when a waiver or deferral has been utilised, not simply because the trade was eligible for the waiver or deferral.

Based on feedback from ESMA, the MMT Technical Committee have produced diagrams to advise on the use of pre-trade waiver flags (MMT Level 3.2) and post-trade deferral flags (MMT Level 4.1). Details can be found here:

<https://www.fixtrading.org/packages/mmt-faq-document-v3-01/>

1.14 MTF/OTF reporting

TRADEcho APA supports MTF and OTF reporting. The MTF/OTF need to supply their MIC and the appropriate **PartyRole** (MTF/OTF) in the messages. For example messages, see Trade reporting message guide on page 55.

1.15 Counterparty types and identification codes

LSE Member ID (See LSE Website for lists)

An 8-11 character identification code issued by the LSE for:

- All TRADEcho clients (associated with FIX connectivity via LSE infrastructure as well as client portal permission hierarchy)

- All affiliated LEI's of the client for which the client wishes to submit reports as the executing firm (i.e. **PartyRole** (452) = **1**)
- All counterparts (i.e. **PartyRole** (452) = **17**) of off-book flow taken on exchange
- All counterparts (i.e. **PartyRole** (452) = **17**) where the LSE ID is known and the counterpart wishes to receive drop-copies of the TCR-S (APA)

All TRADEcho clients that are not LSE members will be given a LSE Non-Member ID from the LSE. Additionally, any client of a TRADEcho client that is to receive an assisted report on behalf of the TRADEcho client's submission will also be given a LSE Non-Member ID from the LSE. This allows for distribution via FIX.

LSE ID's are associated within TRADEcho reference data to LEI codes.

For the APA, it is mandatory for the Executing Firm side (**PartyRole** (452) = **1**) either to contain an LSE Member ID or be able to derive the LSE Member ID from the LEI. However, for off-book on-exchange flow (See Counterparty code submission on page 16), the LSE Member ID itself must be provided on the TCR-C.

LEI (Legal Entity Identifier)

Under MiFID II, all counterparts *should* have an LEI and TRADEcho will validate the LEI and derive the counterpart's SI status.

There are some situations where it is foreseen that clients may not have an accurate LEI for their counterpart for determining the reporting obligation.

MIC code (ISO 10383)

Used to identify a venue as a RM\MTF\OTF (and some SI's). This is mandatory when reporting as an MTF or OTF. Because a global source of MIC code data is not currently available, clients should enhance their provision of MIC codes with sufficient other fields to make their status clear. In particular, if a counterpart venue is outside the EEA we suggest setting:

- **MatchType** = **3** (On Exchange) when the venue is in a country that has 3rd-country equivalence
- **MatchType** = **1** (OTC) when the venue is in a country that doesn't have 3rd-country equivalence.

1.15.1 Counterparty code submission

The table below outlines the counterparty codes required for each trade type.

Trade Type	Executing Firm	Contra Firm	Comments
On-venue off-book	LSE Member ID or LSE Non-Member ID	LSE Member ID or LSE Non-Member ID Or NONMEMBER01	When executing a trade on-exchange off-book, under exchange rules the submitting firm is required to be an LSE Member firm.
OTC trade report sent to APA	LSE Member ID or LSE Non-Member ID or LEI that maps to one of the above	Optional but LEI is recommended for viewing in portal	The optionality should be viewed in context with above on-venue flow and below assisted reporting flow

Assisted Reporting	The values above can be used to drive the target APA	The values above can be used to drive assisted reporting to the counterpart's APA	LEI is mandatory when submitting an assisted report. The counterparty must be a Non-Member Client of the LSE
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1.16 Deferrals

TRADEcho APA will by default identify and apply the maximum available deferral. For OTC and SI trades clients can choose to override the TRADEcho APA deferral and set alternative publication times.

1.16.1 System set deferral

A TCR is set up for system set deferral by setting **TradePublishIndicator = 2** (Deferred publication requested).

1.16.2 Client set deferral

There are two ways for clients to set the deferral period:

- Sending a TCR for system set deferral, with the additional field **DelayToTime** specifying the UTC publication time. This alternative is only allowed for OTC and SI trades.
- Sending a TCR for system set deferral, and at the desired publication time sending in a Prerelease TCR, i.e. a TCR that specifies the original report with **TradeID** and has **TradeReportTransType = 3** (Release)

1.16.3 Publication time

The system will specify the intended publication time on the TCR-S messages in the field **RptTime** (7570).

1.17 Packages

TRADEcho expects a TCR-C message for each trade component of a MiFID II defined package; it does not require a separate message that represents the package as a whole. Package components will be identified by the presence of:

- A common package identifier—**PackageID** (2489)
- A common count of components—**TotNumTradeReports** (748)
- A component sequence number—**TradeNumber** (2490)

Field **TrdType** (828) = **65** (TPAC) is not used to identify a package trade and will be set automatically by TRADEcho if not present.

TRADEcho will not publish any component until all components have been received and verified. If all components have not been received within 15 minutes of the **TransactTime** (60) or 3 minutes of the first component's receipt, a Level 3 TradeCaptureReportAck is sent for each received component, warning that not all components have been received. TRADEcho waits until either all components of the package have been received or all components have been cancelled by the client.

Once all components of a package have been received, any of the following events reported back on the TCR-Ack will require the client to cancel all

components and, if necessary, resend the package with a new **PackageID** (2489):

- A component is received with **TradeNumber** (2490) greater than **TotNumTradeReports** (748)
- A component is received with a **TradeNumber** (2490) that has already been seen and it has a different **TradeID** (1003)

1.17.1 *The Reporting Obligation and Deferrals for Packages*

There are open questions within the industry as to how packages should be assessed for the obligation to report and for the application of deferrals. This document assumes:

- All components of a package may inherit the deferral of a single component and the choice of deferral will be the maximum available
- The obligation to report should be assessed at the component level, as if it is not part of a package, by both parties to the trade
- All components of the package should always be sent by the client irrespective of whether they have the reporting obligation or not, unless they deem not to have the obligation for the whole package.

If an amendment for a component is received that changes the deferral status of the package, TRADEcho will apply the new deferral to all components and handle the revised publication schedule as required.

Because all components of the trade are needed in order to assess the overall deferral of the package, the **TradePublishIndicator** (1390) should be set to zero for any component for which there is no reporting obligation by the client.

1.18 **SI MIC**

SIs will need to set up their SI MIC and send their SI MIC to us in line with the ISO Standard.

2 FIX session layer

The session layer describes how FIX sessions are established and maintained.

Sessions support FIX v.5.0 and also FIX v.4.2/v.4.4.

Clients request a **SenderCompID** (49) using the TRADEcho portal.

2.1 Connecting to the FIX server process

A FIX session is established by sending a logon message and is always initiated by the FIX client and accepted by the FIX server process. The FIX session is established between two parties, called sender and target. The parties are represented by the following tags in StandardHeader:

- **SenderCompID** (49)—the party initiating the session
- **TargetCompID** (56)—the acceptor of the session

TargetCompID (56): (Please consult the LSE connectivity team for the latest values used by the environments)

- TRADEcho APA: *TRADECHO*

All FIX sessions must be authorized. When the FIX gateway receives a logon message at connection start, the session is authorized using the following:

- **SenderCompID** (49) - must contain the FIX User ID as set up by the client in the TRADEcho portal. For details on accessing the portal please refer to the TRADEcho connectivity guide
- **Password** (554)—must contain the password

Each FIX client must keep lists of FIX gateways and their IP addresses. If a contribution gateway cannot be reached, a client should wait 5 seconds, then try to connect to the next contribution gateway in the list.

If the server receives a connection attempt from a **SenderCompID**, while a session is already established with the same **SenderCompID**, 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.

2.2 Lost connection

When reconnecting, the subscriber should login again to the session by using the next transmitted sequence numbers. In the event that the sequence numbers are out of synch, the subscriber should send a resend request to retransmit any potentially lost data.

2.3 Reject handling

TRADEcho utilizes three levels of rejections that can occur before a TCR-S is sent. The message types used are:

- Reject (**MsgType** = **3**)
- BusinessMessageReject (**MsgType** = **j**)
- TradeCaptureReportAck (**MsgType** = **AR**)

2.3.1 *Level 1—Reject (3)*

The Reject message is used when a message is received but cannot be properly processed due to a session level rule violation. Here are some examples:

- A message lacking a mandatory tag;
- A message with an incorrect value for a specific tag;
- A tag without a value;
- Unknown message type;
- A tag appears more than once.

TRADEcho will not reject messages for having invalid tags (i.e. **SessionRejectReason 2** or **3**), instead TRADEcho ignores any tags that are not covered by the services.

Apart from key fields in repeating groups, TRADEcho does not require tags to be in a particular order.

2.3.2 *Level 2—BusinessMessageReject (j)*

The BusinessMessageReject is used for covering second level validation failures, including when a message is lacking conditionally mandatory tags or when the FIX gateway is open but the requested service is closed.

2.3.3 *Level 3—TradeCaptureReportAck (AR)*

Third level validation failures are covered by TradeCaptureReportAck, which include price and quantity validation errors, erroneous member identifiers, member not eligible for service etc.

2.4 **Message rate throttling**

TRADEcho has implemented a scheme for throttling message traffic where each **CompID** is only permitted a certain message rate. The message rate permitted is determined by configured user thresholds and the current traffic in the FIX gateway. If any threshold is exceeded, messages will be put on hold before being processed.

2.5 Session message details

2.5.1 Logon

The logon message authenticates a user establishing a connection to a remote system. The logon message must be the first message sent by the session initiator.

If the logon request is rejected, a logout message is sent back with the reason for the rejection in the <Text (58)> field and the TCP/IP session is terminated by FIX Gateway.

On some occasions a silent disconnect is used as to protect unauthorized access attempts from obtaining information.

Logon (A)

Tag	Name	Reqd	Comment								
	StandardHeader	Y	MsgType = A								
98	EncryptMethod	Y	The method of encryption. Always 0=None								
108	HeartBtInt	Y	Indicates the heartbeat interval in seconds								
141	ResetSeqNumFlag	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>Yes, reset sequence numbers</td> </tr> <tr> <td>N</td> <td>No</td> </tr> </tbody> </table>	Value	Meaning	Y	Yes, reset sequence numbers	N	No		
Value	Meaning										
Y	Yes, reset sequence numbers										
N	No										
554	Password	Y	The password assigned to the CompID. Required if the message is generated by the client. New Passwords should be configured and managed via the TRADEcho portal.								
925	NewPassword	N	New Password or passphrase. [Remove this when password reset is available in the portal]								
1409	SessionStatus	C	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>1</td> <td>Session password changed</td> </tr> <tr> <td>3</td> <td>New Password Does Not Comply with Policy</td> </tr> </tbody> </table>	Value	Meaning	0	Session Active	1	Session password changed	3	New Password Does Not Comply with Policy
Value	Meaning										
0	Session Active										
1	Session password changed										
3	New Password Does Not Comply with Policy										
1137	DefaultAppVerID	Y	The default version of FIX messages used in this session.								

StandardTrailer Y

2.5.2 Heartbeat

During periods of message inactivity, FIX applications will generate Heartbeat messages at regular time intervals. The heartbeat monitors the status of the communication link and identifies incoming sequence number gaps.

When logging on, the client requests a heartbeat interval, using the `HeartBtInt` tag (see the logon message). Heartbeats must be sent in both directions:

- FIX Gateway sends Heartbeat requests at the requested interval, unless other messages are sent.
- The FIX client must send Heartbeat requests at the requested interval, unless other messages are sent.
- Too frequent Heartbeat interval might result in a disconnect in case of a general network glitch, causing the client to miss two consecutive Heartbeats.

Heartbeat (0)

The Heartbeat monitors the status of the communication link and identifies when the last of a string of messages was not received.

Tag	Name	Reqd	Comment
	StandardHeader	Y	MsgType = 0
112	TestReqID	C	Required when the heartbeat is the result of a Test Request message
	StandardTrailer	Y	

2.5.3 TestRequest

TestRequest (1)

The test request message forces a heartbeat from the opposing application.

The test request message checks sequence numbers or verifies communication line status. The opposite application responds to the Test request with a Heartbeat containing the **TestReqID**.

Tag	Name	Reqd	Comment
	StandardHeader	Y	MsgType = 1
112	TestReqID	Y	Required when the heartbeat is the result of a Test Request message
	StandardTrailer	Y	

2.5.4 ResendRequest

The resend request is sent to initiate the retransmission of messages.

This function is utilized if a sequence number gap is detected, if the receiving application lost a message, or as a function of the initialization process.

ResendRequest (2)

Tag	Name	Reqd	Comment
	StandardHeader	Y	MsgType = 2
7	BeginSeqNo	Y	
16	EndSeqNo	Y	
	StandardTrailer	Y	

2.5.5 Reject

Reject (Session Level) (3)

The reject message should be issued when a message is received but cannot be properly processed due to a session-level rule violation.

An example of when a reject may be appropriate would be the receipt of a message with invalid basic data which successfully passes de-encryption, CheckSum and BodyLength checks.

Tag	Name	Reqd	Comment
	StandardHeader	Y	MsgType = 3
45	RefSeqNum	Y	MsgSeqNum of rejected message
371	RefTagID	N	The tag number of the FIX field being referenced.
372	RefMsgType	N	

373	SessionRejectReason	N	1 = Required Tag Missing 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 11 = Invalid MsgType 13 = Tag appears more than once 15 = Repeating group fields out of order 16 = Incorrect NumInGroup count for repeating group 18 = Invalid/Unsupported Application Version 99 = Other
58	Text	N	Code to identify reason for a session-level Reject message
	StandardTrailer	Y	

2.5.6

BusinessMessageReject

The BusinessMessageReject message can reject an application-level message that fulfils session-level rules but can be rejected without being validated against the specific message type's rules.

BusinessMessageReject (j)

Tag	Name	Reqd	Comment
	StandardHeader	Y	MsgType = j (lowercase)
45	RefSeqNum	Y	MsgSeqNum of rejected message
372	RefMsgType	Y	The MsgType of the FIX message being referenced.
371	RefTagID	Y	If a message is rejected 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.
380	BusinessRejecReason	Y	4: Application not available 5: Conditionally required field missing 0: Other
58	Text	N	Where possible, message to explain reason for rejection
	StandardTrailer	Y	

2.5.7 *Sequence reset*

Sequence numbers are reset daily. Sequence numbers can also be modified intra-day, where it the reset functionality has different modes:

- Gap Fill Mode—used as the response to a Resend request and
- Reset Mode—used to reset the sequence number after an unrecoverable application failure.

A sequence reset—Reset Mode—can only increase the sequence number.

Sequence reset (4)

The sequence reset message is used by the sending application to reset the incoming sequence number on the opposing side.

Tag	Name	Reqd	Comment						
	StandardHeader	Y	MsgType = 4						
123	GapFillFlag		The mode in which the message is being used. Absence of this field is interpreted as Sequence Reset (N)						
			<table border="1"> <thead> <tr> <th>Value</th> <th>Description</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	Description	Y	Gap Fill	N	Sequence Reset
Value	Description								
Y	Gap Fill								
N	Sequence Reset								
36	NewSeqNo	Y							
	StandardTrailer	Y							

2.5.8 *Logout*

The logout message initiates or confirms the termination of a FIX session. FIX clients should terminate their sessions gracefully by logging out.

Logout (5)

Tag	Name	Reqd	Comment
	StandardHeader	Y	MsgType = 5

1409	SessionStatus		Required when the heartbeat is the result of a Test Request message																
			<table border="1"> <thead> <tr> <th>Value</th> <th>Meaning</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>New Password Does Not Comply with Policy</td> </tr> <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>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	3	New Password Does Not Comply with Policy	4	Session logout complete	6	Account locked	7	Logons are not allowed at this time	100	Other	101	Logout due to session level failure	102	Logout by Service Desk
Value	Meaning																		
3	New Password Does Not Comply with Policy																		
4	Session logout complete																		
6	Account locked																		
7	Logons are not allowed at this time																		
100	Other																		
101	Logout due to session level failure																		
102	Logout by Service Desk																		
58	Text																		
	StandardTrailer	Y																	

2.5.9

StandardHeader

The standard FIX message header.

Tag	Name	Reqd	Comment
8	BeginString	Y	FIXT.1.1 (Always unencrypted, must be first field in message)
9	BodyLength	Y	(Always unencrypted, must be second field in message)
35	MsgType	Y	(Always unencrypted, must be third field in message)
1128	AppVerID		Version of FIX used. Required if the message is generated by the server.
49	SenderCompID	Y	(Always unencrypted)
56	TargetCompID	Y	(Always unencrypted)
115	OnBehalfOfCompID		Trading partner company ID used when sending messages via a third party (Can be embedded within encrypted data section.)
128	DeliverToCompID		Trading partner company ID used when sending messages via a third party (Can be embedded within encrypted data section.)
34	MsgSeqNum	Y	Yes (Can be embedded within encrypted data section.)
50	SenderSubID		Yes (Can be embedded within encrypted data section.)
57	TargetSubID		"ADMIN" reserved for administrative messages not intended for a specific user. (Can be embedded within encrypted data section.)

116	OnBehalfOfSubID		Trading partner SubID used when delivering messages via a third party. (Can be embedded within encrypted data section.)
144	OnBehalfOfLocationID		Trading partner LocationID (i.e. geographic location and/or desk) used when delivering messages via a third party. (Can be embedded within encrypted data section.)
129	DeliverToSubID		Trading partner SubID used when delivering messages via a third party. (Can be embedded within encrypted data section.)
145	DeliverToLocationID		Trading partner LocationID (i.e. geographic location and/or desk) used when delivering messages via a third party. (Can be embedded within encrypted data section.)
43	PossDupFlag		Always required for retransmitted messages, whether prompted by the sending system or as the result of a resend request. (Can be embedded within encrypted data section.)
97	PossResend		Required when message may be duplicate of another message sent under a different sequence number. (Can be embedded within encrypted data section.)
52	SendingTime	Y	(Can be embedded within encrypted data section.)
122	OrigSendingTime		Required for message resent as a result of a ResendRequest. If data is not available set to same value as SendingTime (Can be embedded within encrypted data section.)
369	LastMsgSeqNumProcessed		The last MsgSeqNum value received by the FIX engine and processed by downstream application, such as trading system or order routing system. Can be specified on every message sent. Useful for detecting backlog with a counterparty.

2.5.10

StandardTrailer

The standard FIX message trailer.

Tag	Name	Reqd	Comment
93	SignatureLength		Required when trailer contains signature. Note: Not to be included within SecureData field
89	Signature		Note: Not to be included within SecureData field
10	Checksum	Y	(Always unencrypted, always last field in message)

3 SRR message flows

Note: As this document was created as a subset of the complete TRADEcho FIX Specification that includes both APA and SRR functionality, the original SRR section headings have been retained to maintain consistency of referencing between the 2 documents.

4 SRR trade report messaging

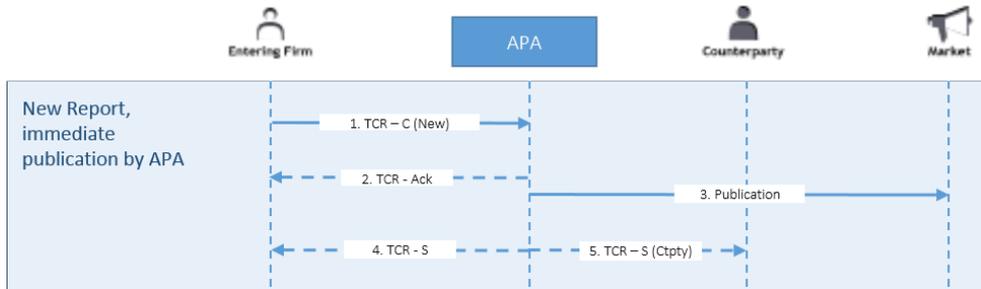
Note: As this document was created as a subset of the complete TRADEcho FIX Specification that includes both APA and SRR functionality, the original SRR section headings have been retained to maintain consistency of referencing between the 2 documents.

5 APA message flows

5.1 Messaging flows

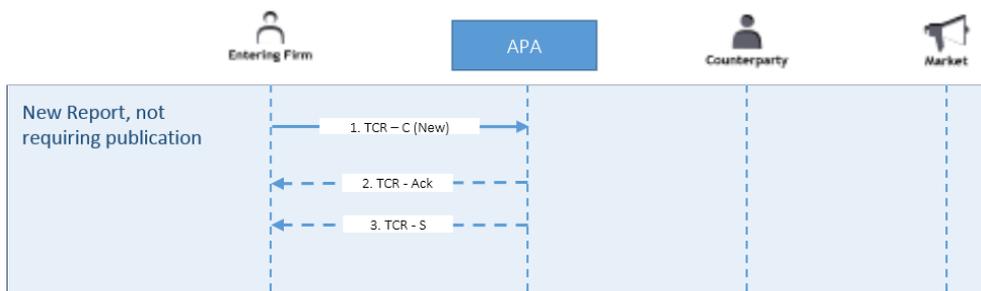
5.1.1 New, amends, cancels

Immediate APA publication



1. Submitting firm sends a TCR-C to TRADEcho, either with
 - o **TradePublishIndicator** (1390) = **1** (Immediate Publication), or
 - o **TradePublishIndicator** (1390) = **2** (Deferred Publication Requested) and the system does not deem the trade to be eligible for deferral
2. TRADEcho APA sends a TCR-Ack to submitting firm
3. TRADEcho APA publishes the trade (time = **T**)
4. TRADEcho APA sends a TCR-S to the entering firm with enriched fields including
 - TradeReportTransType** (487) = **2** (Replace)
 - RptTime** (7570) = **T**
5. If the counterparty firm is an LSE Member and is specified on the trade report, it gets a TCR-S with
 - TradeReportTransType** (487) = **0** (New)
 - RptTime** (7570) = **T**

Trade does not require publication

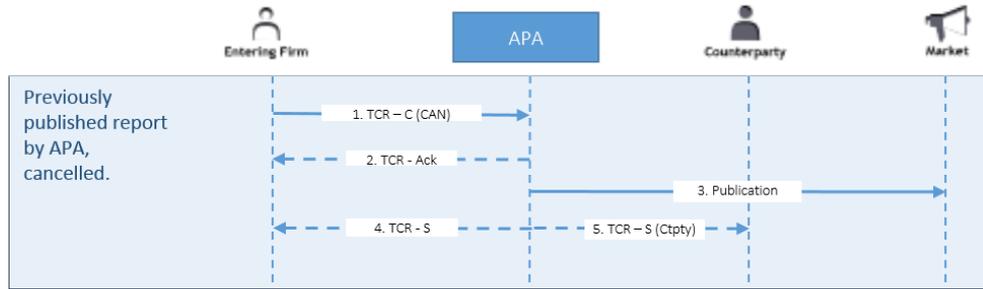


1. Submitting firm sends a TCR-C to TRADEcho APA with **TradePublishIndicator** (1390) = **0** (Do Not Publish)
2. TRADEcho APA sends a TCR-Ack to submitting firm
3. TRADEcho APA sends a TCR-S to submitting firm with enriched fields

Previously published report cancelled

When cancelling trades, the **TradeID** that the APA assigned the original trade needs to be specified. The message should also be populated with the cancellation instruction (**TradeReportTransType** = **1**) along with the mandatory

fields for the TCR-C (including but not limited to the fields specified in the example flow below).

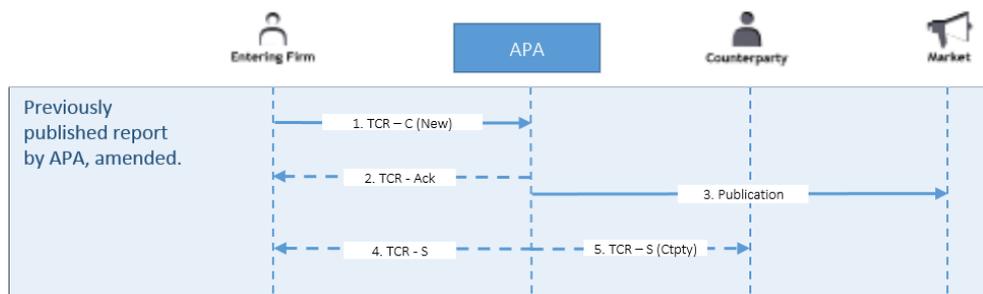


1. Submitting firm sends a TCR-C with **TradeReportTransType** (487) set **1** (cancel)
2. TRADEcho APA sends a TCR-Ack to submitting firm
3. TRADEcho APA publishes the cancellation
4. TRADEcho APA sends a TCR-S to the entering firm with enriched fields including
TradeReportTransType (487) = **2** (Replace)
ExecType = **H** (Trade Cancel)
5. If the counterparty firm is an LSE Member and is specified on the trade report, it gets a TCR-S with
TradeReportTransType (487) = **1** (Cancel)
ExecType = **H** (Trade Cancel)

Note: If the Trade Report is older than 30 days, the cancel request is considered to be a Late Cancel request. For this case, the APA requires a full set of attributes and the Trade Report is validated as a new trade submission.

Amendment to previously published trade

Amendments are handled by sending a cancellation message followed by a new message (TCR-C with **TradeReportTransType** = **o**). To link the amended trade report to the original, the Transaction Identification Code of the trade being amended is required to be specified in **OrigTradeID**.



Step 1: Previously published report cancelled (See separate messaging flow)

Step 2: Amend

1. Submitting firm sends a TCR-C with
TradeReportTransType (487) = **o** (New)
OrigTradeID = **XYZ123** (TradeID of the original trade report).
2. TRADEcho APA sends a TCR-Ack to submitting firm with a new Transaction ID

TradeID = XYZ456

3. TRADEcho APA publishes the amendment
4. TRADEcho APA sends a TCR-S with **TradeReportTransType (487) = 2** (Replace)
5. If the counterparty firm is an LSE Member and is specified on the trade report, it gets a TCR-S with **TradeReportTransType (487) = 0** (New)
TradeID = XYZ456

5.1.2 Deferrals

TRADEcho APA can identify and apply the maximum available deferral. This service is requested by setting **TradePublishIndicator = 2** (Deferred Publication Requested) on the TCR. If **TradePublishIndicator = 1** (Immediate Publication) is set the trade will be published immediately regardless of if it is eligible for deferral.

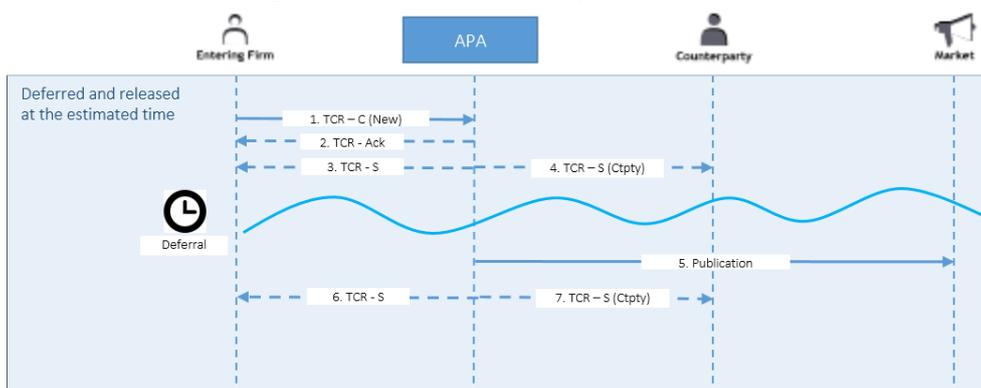
Clients can choose to override the TRADEcho APA deferral and set alternative publication times. There are two ways for clients to set the deferral period

1. Sending a TCR with **TradePublishIndicator (1390) = 2**, with the additional field **DelayToTime** specifying the UTC publication time.
2. Sending a TCR with **TradePublishIndicator (1390) = 2**, and at the desired publication time sending in a Pre-Release TCR, i.e. a TCR that specifies the original report with **TradeID** and has **TradeReportTransType (487) = 3** (Release).

Publication time

The system will specify the intended publication time on the TCR-S messages in the field **RptTime (7570)**. This same field is used for specifying the actual publication time after a trade report has been published.

New trade requesting deferred publication by APA



1. Submitting firm sends a TCR-C with **TradePublishIndicator (1390) = 2** (Deferred Publication Requested)
2. TRADEcho APA sends a TCR-Ack to submitting firm
3. TRADEcho APA calculates that the trade report is eligible for deferral to time T and sends a TCR-S signifying the report has been deferred with **TradeReportTransType (487) = 2** (Replace)
RptTime = T
4. If the counterparty firm is an LSE Member and is specified on the trade report, it gets a TCR-S with

TradeReportTransType (487) = 0 (New)

RptTime = T

5. TRADEcho APA publishes the trade
6. TRADEcho APA publishes a TCR-S to submitting firm signifying that the trade has been released for publication with:

TradeReportTransType (487) = 3 (Release)

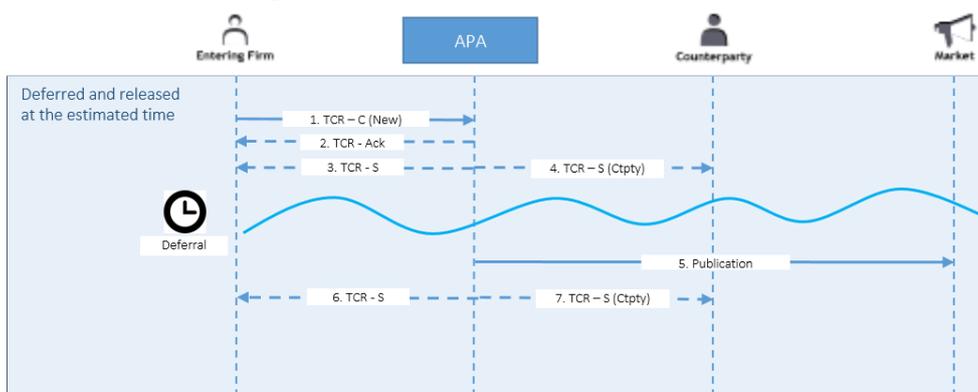
RptTime = The actual publication time

7. If the counterparty firm is an LSE Member and is specified on the trade report, it gets a TCR-S with

TradeReportTransType (487) = 3 (Release)

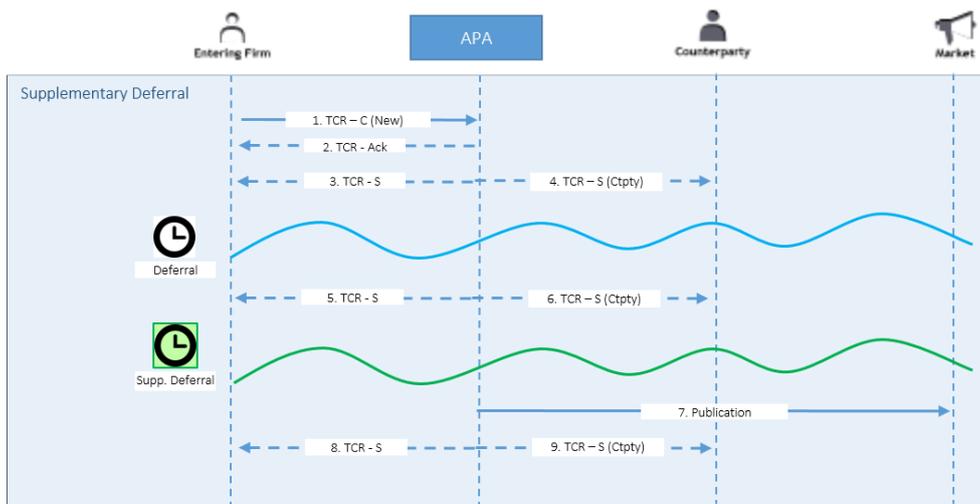
RptTime = The actual publication time

New trade requesting a specific deferral



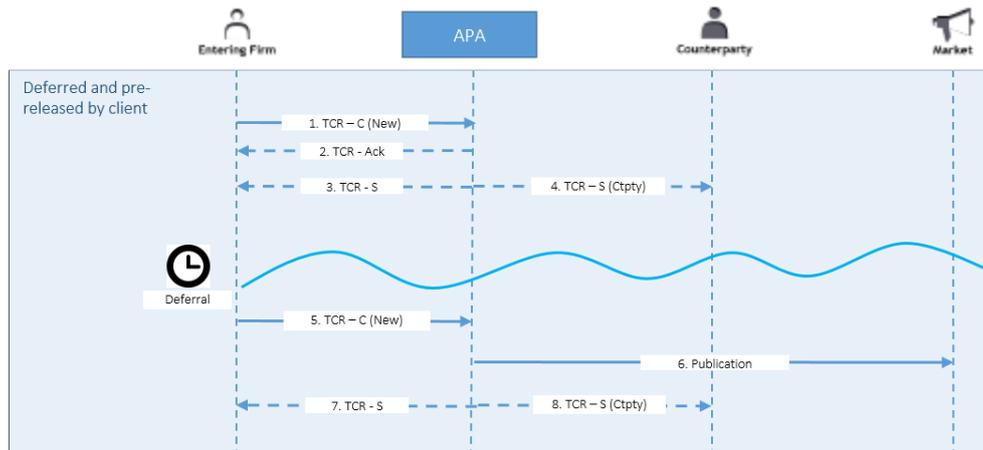
1. Submitting firm sends a TCR-C requesting publication on T with **TradePublishIndicator** (1390) = 2 (Deferred Publication Requested) **DelayToTime** = T
2. TRADEcho APA sends a TCR-Ack to submitting firm
3. TRADEcho APA sends a TCR-S signifying the report has been deferred with **TradeReportTransType** (487) = 2 (Replace) **RptTime** = T
4. If the counterparty firm is an LSE Member and is specified on the trade report, it gets a TCR-S with **TradeReportTransType** (487) = 0 (New) **RptTime** = T
5. TRADEcho APA publishes the trade
6. TRADEcho APA publishes a TCR-S to submitting firm signifying that the trade has been released for publication with: **TradeReportTransType** (487) = 3 (Release) **RptTime** = The actual publication time
7. If the counterparty firm is an LSE Member and is specified on the trade report, it gets a TCR-S with **TradeReportTransType** (487) = 3 (Release) **RptTime** = The actual publication time

New trade into APA requiring supplementary deferred publication



1. Submitting firm sends a TCR-C with **TradePublishIndicator** (1390) = **2** (Deferred Publication Requested)
2. TRADEcho APA sends a TCR-Ack to submitting firm
3. TRADEcho APA calculates that the trade report is eligible for deferral to time **T** and sends a TCR-S signifying the report has been deferred with **TradeReportTransType** (487) = **2** (Replace)
RptTime = **T**
4. If the counterparty firm is an LSE Member and is specified on the trade report, it gets a TCR-S with **TradeReportTransType** (487) = **0** (New)
RptTime = **T**
5. TRADEcho APA calculates that the trade report is eligible for a supplementary deferral to time **T** and sends a TCR-S signifying the report has been deferred with **TradeReportTransType** (487) = **2** (Replace)
RptTime = **T**
6. If the counterparty firm is an LSE Member and is specified on the trade report, it gets a TCR-S with **TradeReportTransType** (487) = **0** (New)
RptTime = **T**
7. TRADEcho APA publishes the trade
8. TRADEcho APA publishes a TCR-S to submitting firm signifying that the trade has been released for publication with: **TradeReportTransType** (487) = **3** (Release)
RptTime = The actual publication time
9. If the counterparty firm is an LSE Member and is specified on the trade report, it gets a TCR-S with **TradeReportTransType** (487) = **3** (Release)
RptTime = The actual publication time

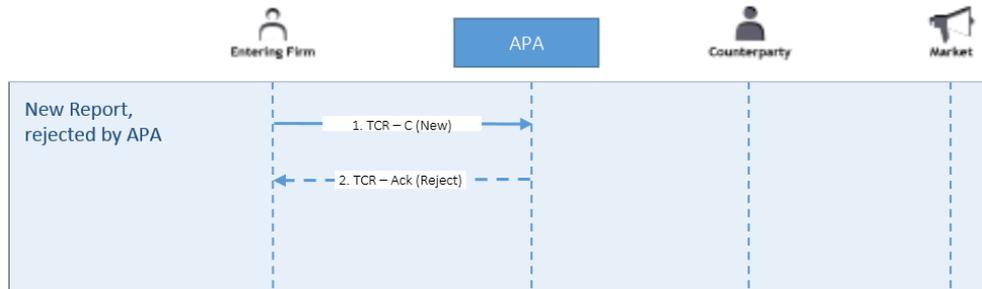
Pre-release of a deferred trade



1. Submitting firm sends a TCR-C with **TradePublishIndicator = 2** (Deferred Publication Requested)
2. TRADEcho APA sends a TCR-Ack to submitting firm with **TradeID = XYZ123**
3. TRADEcho APA calculates that the trade report is eligible for deferral to time **T2** and sends a TCR-S signifying the report has been deferred with **TradeReportTransType = 2** (Replace)
RptTime = T2
4. If the counterparty firm is an LSE Member and is specified on the trade report, it gets a TCR-S with **TradeReportTransType = 0** (New)
RptTime = T2
5. Before the deferral time the submitting firm sends a TCR-C releasing the trade with **TradeReportTransType (487) = 3** (Release)
TradeID = XYZ123
6. TRADEcho APA publishes the trade
7. TRADEcho APA publishes a TCR-S to submitting firm signifying that the trade has been released for publication with:
TradeReportTransType (487) = 3 (Release)
RptTime = The actual publication time
8. If the counterparty firm is an LSE Member and is specified on the trade report, it gets a TCR-S with **TradeReportTransType (487) = 3** (Release)
RptTime = The actual publication time

5.1.3 Exceptions and rejections

Trade rejected by TRADEcho APA



1. Submitting firm sends a TCR-C
2. Depending on type of rejection, the submitting firm receives one of the following
 - Reject (message type 3) with
 - SessionRejectReason** (373) = Error code
 - Text** (58) = Error description
 - BusinessMessageReject (message type j) with
 - BusinessRejectReason** (380) = Error code
 - Text** (58) = Error description
 - TradeCaptureReportAck (message type AR) with
 - TrdRptStatus** = **1** (Rejected)
 - TradeReportRejectReason** = Error code
 - RejectText** = Error description
 - TradeID** = Transaction identification code

Note: Only the TradeCaptureReportAck provides a **TradeID**.

6 APA trade report message details

The following sections cover the supported APA trade report messages.

The trade reporting model supported in the system is single-sided trade reporting. In the single sided reporting model, one of the parties reports the trade and optionally includes the counterparty details in the Trade Capture Report.

6.1 TradeCaptureReport – MsgType "AE" – Client to APA

The client initiated Trade Capture Report message (TCR-C) is a trade report or an instruction on a trade report that is sent from clients to TRADEcho APA. It is used to:

- Report OTC and SI trades.
- Move off-book trades on-exchange.
- Cancel trade reports.
- Amend trade reports.
- Release deferred trade reports for publication.

Tag	Field	Description	Data Type	ESMA	Reqd
1003	TradeID	Server-assigned id. Populated when referring to a previously submitted trade. This ID is the Transaction ID as stipulated by ESMA. Required when TradeReportTransType(487) is either 1, or 3.	String	Transaction Identification Code	C
1041	FirmTradeID	Trade Identifier assigned by the entering firm. TRADEcho will not validate uniqueness. Updatable field. Required when TradeReportTransType(487) = 0 (New)	String Len = 50		C
1126	OrigTradeID	Required when amending, otherwise optional for display in client portal for referencing the original TradeID.	String		C
25011	TargetAPA	Target APA if deemed eligible for publication. Current options: ECHO (LSE UK), ECEU (LSE EEA) Default: ECHO Target APA is not amendable.	String		N
25022	AssistedReportAPA	1 = Publish as an assisted report on behalf of the counterpart 2 = Do not publish as an assisted report Default: 2	int		N

22	SecurityIDSource	4 = ISIN 8 = Exchange symbol LSE ID	String	Instrument identification code type	Y
48	SecurityID	ISIN when SecurityIDSource = 4 ISIN LSE ID when SecurityIDSource = 8 LSE ID	String	Instrument Identification Code	Y
470	CountryOfIssue	ISO 3166 2-character country code. Specifies the country in which the instrument was issued. When SecurityIDSource (22) = 4 (ISIN) <ul style="list-style-type: none"> Recommended for equity products 	Country	ISO 3166 2-character code.	N
15	Currency	Traded currency. ISO 4217 three-letter currency code. (additional values GBX, ZAC, ITL refer to Currency on page 14) Required when TradeReportTransType = 0 (New)	Currency	Price currency	C
32	LastQty	Quantity of the trade Required when TradeReportTransType(487) = 0 (New) The number of units of the financial instrument, or the number of derivative contracts in the transaction. Unit of measurement in QtyType	Qty	Quantity	C
854	QtyType	0= units (shares, par, currency) default 1= contracts (if used ContractMultiplier(231) required) 2= units of measure (if used either UnitofMeasure (996) or TimeUnit (997) required)	int		C
231	ContractMultiplier	Specifies the ratio or multiply factor to convert from "nominal" units (e.g. contracts) to total units (e.g. shares) (e.g. 1.0, 100, 1000, etc). Applicable for Fixed Income, Convertible Bonds, Derivatives, etc. In general quantities for all classes should be expressed in the basic unit of the instrument, e.g. shares for equities, nominal or par amount for bonds, currency for foreign exchange.	float		C
31	LastPx	Price of the trade. If monetary, it is expressed as the traded currency Required when TradeReportTransType(487) = 0 (New), unless TradePriceCondition (1839) = 17 (PNDG)	Price	Price	C

423	PriceType	Price notation 2 = Per Unit (Default) 1 = Percentage 9 = Yield 22 = Basis Points	int	Price Notation	N
25014	NotionalAmount	Notional amount. Required when instrument is non-equity or non-equity like (i.e. covered by RTS 2 only)	float	Notional amount	C
25015	NotionalCurrency	Notional currency. Defaults to Currency (15). ISO 4217 three-letter currency code. In the case of an interest rate or currency derivative contract, this will be the notional currency of leg 1 or the currency 1 of the pair. In the case of swaptions where the underlying swap is single-currency, this will be the notional currency of the underlying swap. For swaptions where the underlying is multicurrency, this will be the notional currency of leg 1 of the swap.	Currency	Notional currency	N
996	UnitOfMeasure	Notation of the quantity in measurement unit of the underlying commodity upon which the contract is based. Required for commodity derivatives and emission allowance derivatives All standard FIX enum values are supported. See http://fiximate.fixtrading.org/latestEP/en/FIX.5.0SP2_EP240/tag996.html	String	Notation of the quantity in measurement unit	C
997	TimeUnit	Unit of time associated with the contract H= Hour Min = Minute S = Second D = Day Wk = Week Mo = Month Yr=Year	String		C
1147	UnitOfMeasureQty	Quantity in measurement unit. Required if UnitOfMeasure (996) is specified.	Qty	Quantity in measurement unit	C

25007	EmissionAllowanceType	Emission allowance type.	String	Type	N
60	TransactTime	UTC Date and Time the trade was executed. Required when TradeReportTransType = 0 (New)	UTCTimestamp	Trading date and time	C
64	SettlDate	Settlement date Ignored for APA routing. For on-venue, off-book reports the default is standard settlement for the instrument unless this field is populated	LocalMktDate		N
25002	OnExchangeInstr	Specifies if the trade is to be moved On-Exchange, and which counterparty will do so. 0 = No On-Exchange requested (default) 1 = On Exchange requested	int		N
1924	ClearingIntention	Specifies the party's or parties' intention to clear the trade 0 = Do not intend to clear (default) 1 = Intend to clear (only accepted for derivatives and securitised derivatives)	int	Transaction to be cleared	N
58	Text	Free text field	String		N
7596	PxQtyReviewed	Field for specifying if the price and quantity validation should be overridden. Y = Yes, override price and quantity validation N = No (Default)	Boolean		N
7552	DelayToTime	Field for specifying the time at which a report should be published by an APA. Ignored if TradePublishIndicator <> 2 (Deferred Publication Requested) or TradePriceCondition = 17 (PNDG)	UTCTimestamp		N
2489	PackageID	Unique identifier to be present on all trade components belonging to the package.	String		N
2490	TradeNumber	A sequentially consecutive ordinal number from 1 to TotNumTradeReports (748) that identifies this component within the same PackageID (2489)	int		C
748	TotNumTradeReports	The total number of component trades expected for any given PackageID (2489)	int		C
25026	SiMic	The MIC for the SI where this trade occurred. Required when MatchType (574) is 9 (Systematic Internaliser) and VenueType (1430) is 'O' (Off-book)	String (4)		C

MMT					
Tag	Field	Description	Data Type	ESMA	Reqd
1430	VenueType	Level 1: Market Mechanism B = Central Limit Order Book Q = Quote Driven Market D = Dark Order Book O = Off Book A = Periodic Auction N = Request for Quotes V = Voice negotiation H = Hybrid (For ESMA RTS 1 "other type of trading system") For Off Book trades, O is a required value	char		C
574	MatchType	Level 2: Trading Mode 3 = Trade Reporting (On Exchange) 1 = OTC 9 = Systematic Internaliser Required if VenueType is O=Off Book	String	Venue of execution (XOFF and SINT)	C
828	TrdType	Level 3.1: Transaction Category 0 = Standard trade for the Market Mechanism and Trading Mode (Default) 62 = Dark Trade 65 = Package Trade (TPAC) 2 = Exchange for physicals (XFPH)	int		N
1115	OrderCategory	Level 3.2: NEGOTIATION INDICATOR OR PRE-TRADE TRANSPARENCY WAIVER 3 = Negotiated Trade	char		N
829	TrdSubType	Level 3.3: Agency Cross Trade Indicator 37 = Agency Cross trade (ACTX-flag)	int	ACTX	N

487	TradeReportTransType	Level 3.4: Modification Indicator. 0 = New 1 = Cancel 3 = Release	int	CANC AMND	Y
855	SecondaryTrdType	Level 3.5: BENCHMARK OR REFERENCE PRICE INDICATOR 64 = Benchmark Trade	int	BENC	N
2405	ExecMethod	Level 3.7: Off-book automated/manual 0: Undefined or does not apply (Default) 1: Off Book Non-Automated 2: Off Book Automated	int		N
2667	AlgorithmicTradeIndicator	Level 3.9: ALGORITHMIC INDICATOR 1 = Algorithmic trade 0 = No Algorithmic Trade (Default)	int	ALGO	N
1390	TradePublishIndicator	Level 4.1: PUBLICATION MODE / POST-TRADE DEFERRAL: REASON 0 = Do Not Publish 1 = Immediate Publication 2 = Deferred Publication Requested (Default)	int	LRGS ILQD SIZE	N
1934	RegulatoryReportType	Level 4.2: POST-TRADE DEFERRAL OR ENRICHMENT: TYPE 11 = LMTF 12 = DATF 13 = VOLO 14 = FWAF 15 = IDAF 16 = VOLW 17 = FULF 18 = FULA 19 = FULV 20 = FULJ 21 = COAF	int	LMTF DATF VOLO FWAF IDAF VOLW FULF FULA FULV FULJ COAF	N

20200	ApplySupplementaryDeferral	Specifies if the trade report should use supplementary deferral if eligible. Y = Yes (Default) N = No	Boolean		N
20201	ExtendedSupplementaryDeferralRegime	Extension of MMT Level 4.2: POST-TRADE DEFERRAL OR ENRICHMENT to support certain special regimes. 101 = DATF Extended Will take precedence over field RegulatoryReportType (1934).	int		N
570	PreviouslyReported	MMT Level 5: Duplicative Indicator Y = Duplicative Trade Report N = Unique Trade Report (Default)	Boolean	DUPL	N

MMT Helper Fields

Tags	Field	Description	Data Type	ESMA	Reqd
1838	NoTradePriceConditions	The number of trade price conditions. Used for MMT Levels 3.1, 3.6, and 3.8	int		N
1838 1839	TradePriceCondition	Level 3.1: TRANSACTION TYPE: TRANSACTION CATEGORY 14 = Price improvement (RPRI) Level 3.6: SPECIAL DIVIDEND INDICATOR 13 = Special dividend trade (SDIV) Level 3.8: ORDINARY/STANDARD TRADES OR TRADES OUTSIDE PRICE FORMATION/DISCOVERY PROCESS 15 = NPFT 16 = TNCP 17 = PNDG Pending Price (see Pending Price on page 15)	int	RPRI SDIV NPFT TNCP	N
2668	NoTrdRegPublications	Number of regulatory publication rules in repeating group	int		N
2668 2669	TrdRegPublicationType	Used for MMT Levels 3.2, 3.5, and 4.1 0 = Pre-trade transparency waiver 1 = Post-trade deferral	int		N

2668	2670	TrdRegPublicationReason	<p>Used for MMT Levels 3.2, 3.5, and 4.1</p> <p>Valid values when TrdRegPublicationType(2669)=0:</p> <p>0 = No preceding order in book as transaction price set within average spread of a liquid instrument</p> <p>1 = No preceding order in book as transaction price depends on system-set reference price for an illiquid instrument</p> <p>2 = No preceding order in book as transaction price is for transaction subject to conditions other than current market price</p> <p>3 = No public price for preceding order as public reference price was used for matching orders</p> <p>4 = No public price quoted as instrument is illiquid</p> <p>5 = No public price quoted as order is above standard market size</p> <p>Valid values when TrdRegPublicationType(2669)=1:</p> <p>Only 1 of the following should be selected</p> <p>6 = Deferral due to "Large in Scale"</p> <p>7 = Deferral due to "Illiquid Instrument"</p> <p>8 = Deferral due to "Size Specific"</p>	int	NLIQ OILQ PRIC RFPT LRGS ILQD SIZE	N
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Party and Side Groups

Tags	Field	Description	Data Type	ESMA	Reqd
552	NoSides	Repeating group for sides. Two sides (Buy and Sell) are mandatory when OnExchangeInstr=1.	NumInGroup		Y
552 54	Side	1 = Buy 2 = Sell 8 = Crossed (Only valid when submitting as an MTF, OTF)	char		Y
552 29	LastCapacity	1 = AOTC (Agent) 2 = AOTC (Cross as Agent) 3 = MTCH (Cross as Principal) 4 = DEAL (Principal) 5 = DEAL (Riskless Principal) Required on the entering firm's side of the trade. Should be omitted on the counterparty side.	char		C

552	625		TradingSessionSubId	<p>Level 2: Trading Mode</p> <p>2 = Scheduled Opening Auction</p> <p>4 = Scheduled Closing Auction</p> <p>6 = Scheduled Intraday Auction</p> <p>9 = Unscheduled Auction</p> <p>8 = Undefined Auction</p> <p>3 = Continuous Trading</p> <p>5 = At Market Close Trading</p> <p>10 = Out of Main Session Trading</p> <p>Required on the entering firm's side of the trade if VenueType(1430) is not O=Off Book</p>	String	C
552	1		Account	Client reference info, free text info	String	N
552	581		AccountType	<p>1 = Client</p> <p>3 = House</p> <p>Optional on the entering firm's side of the trade. Should be omitted on the counterparty side</p>	int	N
552	453		NoPartyIDs	<p>Number of Party Identifiers for the current side of the trade.</p> <p>See Counterparty code submission on page 16.</p>	NumInGroup	Y
552	453	448	PartyID	ID of party	String	Y
552	453	447	PartyIDSource	<p>C = Generally accepted market participant identifier</p> <p>D = Custom [LSE Member ID] – Mandatory for off-book on exchange flow</p> <p>E = ISO Country Code (two letter ISO 3166 country code)</p> <p>G = MIC</p> <p>N = Legal Entity Identifier</p>	char	Y

552	453	452		PartyRole	<p>Entering Side: 1 = Executing Firm (Required) 12 = Trader ID 75 = Location ID 76 = Desk ID 117=Salesperson ID</p> <p>Counterparty Side: 17 = Contra Firm (Required) 55 = Session ID 12 = Trader ID</p> <p>Side = 8 (Crossed) 64 = Multilateral Trading Facility (MTF) 73 = OTF</p>	int	Y
552	453	802		NoPartySubIDs	Number of PartySubID (523) and PartySubIDType (803) entries within the PartySubID group	NumInGroup	N
552	453	802	523	PartySubID	<p>Required when NoPartySubIDs (802) used (& vice versa) Value specific to type PartySubIDType (803) PartySubIDType (803) = 31 (Location)</p> <p>0 = EEA 1 = Non-EEA 2 = UK</p> <p>Brexit phase 2 to CDS): 0-EEA 1-Third Country 2-UK</p>	String	C
552	453	802	803	PartySubIDType	<p>Required when NoPartySubIDs (802) used (& vice versa) Type of PartySubID (523) value. 31 = Location</p>	int	C

6.2 TradeCaptureReport – Ack (AR) – APA to Client

The TradeCaptureReport Ack (35=AR) message can be used to:

- Acknowledge trade capture reports received from a client;
- Reject trade capture reports received from a client.

	Tag	Field	Description	Data Type	ESMA	Reqd
Instrument component	1003	TradeID	Server-assigned ID. Set by APA.	String		Y
	1041	FirmTradeID	Identifier assigned to the trade by the entering firm. Value copied from the TCR-C.	String		N
	22	SecurityIDSource	Value copied from the TCR-C	String		Y
	48	SecurityID	Value copied from the TCR-C	String		Y
	470	CountryOfIssue	Value copied from the TCR-C	Country		N
	15	Currency	Value copied from the TCR-C	Currency		Y

751	TradeReportRejectReason	Not populated when TradeReportTransType (487) = 0 (New): Code specifying the reason for the APA rejection 2=Unknown instrument 99=Other – will include system generated RejectText(1328) on the exact error 7002=Invalid trade time 7004=Unknown Trade ID 7005=Unknown executing firm 7006=Unknown contra firm 7008=Unknown executing user (Trader ID) 7009=Unknown contra user (Owner ID) 7010= Unknown contra user (Default User) 7014=Assisted reporting counterpart firm not registered to submit trade reports 7015=Not registered to submit trade report for executing firm (Owner ID) 7019=Trade already cancelled 7024=Executing user (Owner ID) not from contra firm 7025=Contra user (Owner ID) not from contra firm 7058=Invalid side for executing firm 7060=Package component with TradeNumber greater than TotNumTradeReports 7502=Off-book trade reporting prohibited (not in session) 117009=Invalid size (Value out of range) 117010=Invalid Price/Original Price (Value out of range)	int	C
1328	RejectText	Text specifying the reason for the rejection	String	N
487	TradeReportTransType	0 = New 1 = Cancel 2 = Replace 3 = Release	int	Y
939	TrdRptStatus	0 = Accepted 1 = Rejected	int	Y

6.3 TradeCaptureReport AE Server Initiated (AE) – APA to Client

The server initiated TradeCaptureReport message (TCR-S) 35=AE is an enrichment message sent from TRADEcho APA to clients and in some circumstances their counterparties. It is used to:

- Send enriched trade report details to the reporting clients and their counterparties;
- Confirm new trade reports and amendments to trade reports.

	Tag	Field	Description	Data Type	ESMA	Reqd
	1003	TradeID	Server-assigned id set by the APA.	String	Transaction identification code	Y
	571	TradeReportID	Identifier of the message. Will be unique for each TCR disseminated from the system during the day.	String		Y
	1041	FirmTradeID	Identifier assigned to the trade by the entering firm. Value copied from the TCR-C.	String		Y
	1126	OrigTradeID	Value copied from the TCR-C	String		C
	25012	AggPublicationID	ID set to aggregation group that this trade belongs to.	String		N
	25022	AssistedReportAPA	Value copied from the TCR-C	int		N
	25011	TargetAPA	Value copied from the TCR-C.	String		N
Instrument component	22	SecurityIDSource	4 = ISIN 8 = Exchange symbol LSE ID Value copied from the TCR-C.	String	Instrument identification code type	Y
	48	SecurityID	Value copied from the TCR-C.	String	Instrument Identification Code	Y
	470	CountryOfIssue	The country of issue of the product. Value copied from the TCR-C.	Country		N
	15	Currency	Identifies the traded currency. Value copied from the TCR-C.	Currency	Price currency	Y
	150	ExecType	Type of execution being confirmed by the system. F=Trade H=Trade Cancel	char		Y
	32	LastQty	Quantity of the trade. Value copied from the TCR-C.	Qty	Quantity	Y

854	QtyType	QtyType value copied from the TCR-C	int		C
231	ContractMultiplier	ContractMultiplier value copied from the TCR-C	float		C
31	LastPx	Price of the trade. Value copied from the TCR-C.	Price	Price	C
423	PriceType	Price notation. Value copied from the TCR-C	int	Price Notation	Y
25014	NotionalAmount	Notional amount. Value copied from the TCR-C.	float	Notional amount	N
25015	NotionalCurrency	Notional currency. Value copied from the TCR-C.	Currency	Notional currency	N
996	UnitOfMeasure	Notation of the quantity in measurement unit. Value copied from the TCR-C.	String	Notation of the quantity in measurement unit	N
1147	UnitOfMeasureQty	Quantity in measurement unit. Value copied from the TCR-C.	Qty	Quantity in measurement unit	N
25007	EmissionAllowanceType	The emission allowance type. Value copied from the TCR-C.	String	Type	N
106	Issuer	TBC if this is required for MiFID II.	String		N
60	TransactTime	UTC Date and Time the trade was executed. Required when TradeReportTransType = 0 (New), 2 (Replace) Value copied from the TCR-C.	UTCTimestamp	Trading date and time	C
64	SettlDate	Value copied from the TCR-C.	LocalMktDate		N
25002	OnExchangeInstr	Value copied from the TCR-C.	int		N
1924	ClearingIntention	Specifies the party's or parties' intention to clear the trade. Value copied from the TCR-C.	int	Transaction to be cleared	N
58	Text	Value copied from the TCR-C.	String		N
7596	PxQtyReviewed	Value copied from the TCR-C.	Boolean		N
7584	TradeReportSystem	Specifies if trade report was submitted/amended/cancelled via GUI, FIX or SRR. 1 = FIX 2 = Web portal 3 = SRR	int		Y
7552	DelayToTime	Value copied from the TCR-C.	UTCTimestamp		N

7570	RptTime	The time the system will publish (in case of deferral) or has published the trade.	UTCTimestamp	Publication date and time	N
25026	SiMic	Value copied from the TCR-C.	String (4)		C
MMT					
Tag	Field	Description	Data Type	ESMA	Reqd
1430	VenueType	MMT Level 1: Market Mechanism Value copied from the TCR-C.	char		Y
574	MatchType	MMT Level 2: Trading Mode Value copied from the TCR-C. Required if VenueType is Off-market	String	Venue of execution (XOFF and SINT)	C
828	TrdType	MMT Level 3.1: Transaction Category Value copied from the TCR-C.	int	TPAC XFPH	N
1115	OrderCategory	MMT Level 3.2: NEGOTIATION INDICATOR OR PRE-TRADE TRANSPARENCY WAIVER Value copied from the TCR-C.	char		N
829	TrdSubType	MMT Level 3.3: Agency Cross Trade Indicator Value copied from the TCR-C.	int	ACTX	N
487	TradeReportTransType	MMT Level 3.4: Modification Indicator. 0 = New (Only sent to counterparty firm) 1 = Cancel (Only sent to counterparty firm) 2 = Replace (Enrichment TCR-S) 3 = Release (Publication or pre-release of deferred trade report, sent to both entering and counterparty firm)	int		Y
855	SecondaryTrdType	MMT Level 3.5: BENCHMARK OR REFERENCE PRICE INDICATOR Value copied from the TCR-C.	int	BENC RFPT	N
2405	ExecMethod	MMT Level 3.7: Off-book automated/manual Value copied from the TCR-C.	int		N
2667	AlgorithmicTradeIndicator	MMT Level 3.9: ALGORITHMIC INDICATOR Value copied from the TCR-C.	int	ALGO	N

1390	TradePublishIndicator	MMT Level 4.1: PUBLICATION MODE / POST-TRADE DEFERRAL: REASON Value copied from the TCR-C.	int		N
1934	RegulatoryReportType	MMT Level 4.2: POST-TRADE DEFERRAL OR ENRICHMENT: TYPE Level 4.2: POST-TRADE DEFERRAL OR ENRICHMENT: TYPE 11 = LMTF 12 = DATF 13 = VOLO 14 = FWAF 15 = IDAF 16 = VOLW 17 = FULF 18 = FULA 19 = FULV 20 = FULJ 21 = COAF Value determined by the APA	int	LMTF, DATF, VOLO, FWAF, IDAF, VOLW, FULF, FULA, FULV, FULJ, COAF	N
20200	ApplySupplementaryDeferral	Specifies if the trade report should use supplementary deferral if eligible. Value copied from the TCR-C.	Boolean		Y
20201	ExtendedSupplementaryDeferralRegime	Extension of MMT Level 4.2: POST-TRADE DEFERRAL OR ENRICHMENT to support certain special regimes. 101 = DATF Extended Value determined by the APA	int		N
570	PreviouslyReported	MMT Level 5: Duplicative Indicator Y = Previously reported N = Not reported Value copied from the TCR-C.	Boolean	DUPL	N

MMT Helper Fields						
Tags	Field	Description	Data Type	ESMA	Reqd	
1838	NoTradePriceConditions	The number of trade price conditions. Used for MMT Levels 3.1, 3.6, and 3.8 Group copied from the submitted trade report.	int		N	
1838 1839	TradePriceCondition	MMT Level 3.1: TRANSACTION TYPE: TRANSACTION CATEGORY Value copied from the TCR-C.	int	RPRI SDIV NPFT TNCP PNDG	N	
2668	NoTrdRegPublications	Number of regulatory publication rules in repeating group. Group copied from the submitted trade report.	int		N	
2668 2669	TrdRegPublicationType	Used for MMT Levels 3.2, 3.5, and 4.1 0 = Pre-trade transparency waiver 1 = Post-trade deferral	int		N	
2668 2670	TrdRegPublicationReason	<ul style="list-style-type: none"> If TradeReportTransType=3 (Release) this field contains the values published Otherwise, this field contains values copied from the TCR-C and values derived by the APA Valid values when TrdRegPublicationType(2669)=1: Only 1 of the following will be selected for publication 6 = Deferral due to "Large in Scale" 7 = Deferral due to "Illiquid Instrument" 8 = Deferral due to "Size Specific"	int	NLIQ OILQ PRIC RFPT LRGS ILQD SIZE	N	
Party and Side Groups						
Tags	Field	Description	Data Type	ESMA	Reqd	
552	NoSides	Repeating group for sides. Always 1, only the receiving firm's side of the trade is returned.	NumInGroup		Y	
552 54	Side	1 = Buy, 2 = Sell, 8 = Crossed (Only valid for exchanges)	char		Y	
552 29	LastCapacity	Value copied from the TCR-C.	char		C	

552	625			TradingSessionSubId	Level 2: Trading Mode Value copied from the TCR-C.	String	C
552	1			Account	Value copied from the TCR-C.	String	N
552	581			AccountType	Value copied from the TCR-C.	int	N
552	453			NoPartyIDs	Number of party IDs.	NumInGroup	Y
552	453	448		PartyID	ID of party.	String	Y
552	453	447		PartyIDSource	C = Generally accepted market participant D = Custom E = ISO Country Code G = MIC N = LEI	char	Y
552	453	452		PartyRole	1 = Executing Firm (Required) 17 = Contra Firm (Required if NoSides = 2) 12 = Trader ID 55 = Session ID (Only on message sent to counterparty) 63 = Systematic Internaliser (SI) 64 = Multilateral Trading Facility (MTF) 65 = Regulated Market (RM) 67 = Investment Firm (MiFID II) 73 = Execution Venue (OTF) 75 = Location ID 76 = Desk ID (Only on message sent to entering firm) 117=Salesperson ID Note: The message might contain two each of PartyGroups with PartyRole(452) =ExecutingParty(1) or Contra Firm(17). The two will have different values in PartyIDSource(447).	int	Y
552	453	802		NoPartySubIDs	Value copied from the TCR-C.	NumInGroup	N
552	453	802	523	PartySubID	Value copied from the TCR-C.	String	C
552	453	802	803	PartySubIDType	Value copied from the TCR-C.	int	C

7 Trade reporting message guide

7.1 Submitting new trades

All tags that are required for submitting new trade reports to TRADEcho APA are detailed below. Further down, differences are explained between certain types of trades.

Tag	Required?
FirmTradeID	Required
SecurityID	Required
SecurityIDSource	Required
LastQty	Required
LastPx	Required
Currency	Required
TransactTime	Required
SettlDate	Only required for off-book equity trades taken on exchange but not mandatory after Nov 2017
NotionalAmount	Required when instrument is non-equity OR non-equity like
MatchType	Required for off-book trades
TradeReportTransType	Always 0
VenueType	Required for off-book trades
NoSides	2 sides required by On-Exchange APA trades
• Side	Required
• LastCapacity	Required on entering firm's side
• NoPartyIDs	Required
• PartyID	Required
○ PartyIDSource	Required
○ PartyRole	Required

7.1.1 Submitting OTC and SI trades

When submitting OTC and SI trades the APA does not require any counterparty information unless offering assisted reporting.

Tag	Value
VenueType	'O'
MatchType	1 (OTC) or g (SI)
NoSides	1 (Counterparty side is optional)

Example of new OTC trade with both sides populated:

FirmTradeID (1041) = **FTIDXYZ123**

SecurityID (48) = **SE0000106270**

SecurityIDSource (22) = **4**

Currency (15) = **"GBP"**

LastQty (31) = **1000**

LastPx (32) = **23**

TransactTime (60) = "20170208-15:05:30"

SettlDate = "20170210"

TradeReportTransType (487) = 0

TradePublishIndicator (1390) = 2

VenueType (1430) = 'O'

MatchType (574) = 1

NoSides (552) = 2

- **Side** (54) = 1
- **LastCapacity** (29) = 4
- **NoPartyIDs** (453) = 3
 - **PartyID** (448) = [LSE Member ID]
 - **PartyIDSource** (447) = 'D'
 - **PartyRole** (452) = 1
- ---
 - **PartyID** (448) = [LEI]
 - **PartyIDSource** (447) = 'N'
 - **PartyRole** (452) = 1
- ---
 - **PartyID** (448) = [Desk]
 - **PartyIDSource** (447) = 'D'
 - **PartyRole** (452) = 76
- ---
- **Side** (54) = 2
- **NoPartyIDs** (453) = 1
 - **PartyID** (448) = [LSE Member ID]
 - **PartyIDSource** (447) = 'D'
 - **PartyRole** (452) = 17

7.1.2 New On-Exchange Off-book trades

Off-book trades are executed under the rules of the LSE when **MatchType** = 3 and **OnExchangeInstr** = 1. Counterparty information must be supplied in the form of a LSE Member ID. The changes from OTC and SI trades are:

Tag	Value
OnExchangeInstr	1
MatchType	3 (On-Exchange)
NoSides	2

Note: Target APA must be ECHO for On-Exchange Off-book trades

7.1.3 Submitting On-book On-Venue trades to the SRR

Note: As this document was created as a subset of the complete TRADEcho FIX Specification that includes both APA and SRR functionality, the original SRR section headings have been retained to maintain consistency of referencing between the 2 documents.

7.1.4 MTF/OTF reporting

Trades submitted by OTF:s and MTF:s using TRADEcho APA for publication are similar to the On-book trades, but only supply one side with **Side = 8**.

Note: Under MiFID II the transaction time requires micro second granularity.

Example of an MTF trade:

FirmTradeID (1041) = "FTIDXYZ123"

SecurityID (48) = "SE0000106270"

SecurityIDSource (22) = 4

Currency (15) = "GBP"

LastQty (31) = 23

LastPx (32) = 256

TransactTime (60) = "20170208-15:05:30.012345"

TradeReportTransType (487) = 0

TradePublishIndicator (1390) = 1

VenueType (1430) = 'D'

NoSides (552) = 1

- **Side** (54) = 8
- **NoPartyIDs** (453) = 1
 - **PartyID** (448) = [MIC]
 - **PartyIDSource** (447) = 'G'
 - **PartyRole** (452) = 64

7.1.5 Cancelling trades

When cancelling a trade, the identifier that the service assigned the trade (**TradeID**) shall be provided, along with the details below.

Tag	Value
TradeID	Required
SecurityID	Required
SecurityIDSource	Required
TradeReportTransType	1
NoSides	Same info in side group as original trade is required
• Side	Y
• LastCapacity	Y
• NoPartyIDs	Y
○ PartyID	Y
○ PartyIDSource	Y
○ PartyRole	Y

Note: If the Trade Report is older than 30 days, the cancel request is considered to be a Late Cancel request. For this case, the APA requires a full set of attributes and the Trade Report is validated as a new trade submission.

7.1.6 *Amending trades*

When amending trades on the APA a cancellation messages needs to be sent, followed by a new submission of the trade. The new submission shall have **OrigTradeID** populated with the original **TradeID** that the APA assigned the trade.

Apart from the new values in the amended fields, all original details of the trade must be submitted.